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PRELIMINARY ENVIRONMENTAL CONTAMINATION ASSESSMENT

Clyde Creek & Thompsons Road, Clyde (PSP 53 & PSP 54)

DOCUMENT CONTROL DATA

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Distribution Table

Date	Revision	Distribution
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CONTENTS

FIGURES

APPENDICES

List of Abbreviations and Units

ANZECC	Australia and New Zealand Environment and Conservation Council
AST	Above-ground Storage Tank
BaP	Benzo(a)pyrene
BTEX	Benzene, Toluene, Ethylbenzene & Xylene
CHC	Chlorinated hydrocarbons
COC	Chain of Custody
CUTEP	Clean Up to the Extent Practicable
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
EC	Electrical Conductivity
EIL	Environmental Investigation Level
EPA	Victorian Environmental Protection Authority
GWDB	Groundwater Data Base
HIL	Health Investigation Level
HM	Heavy Metal
HVO	Halogenated Volatile Organics
LNAPL	Light Non-Aqueous Phase Liquid
LOR	Limit of Reporting
MAH	Monocyclic Aromatic Hydrocarbons
NATA	National Association of Testing Authorities
ND	Non Detect
NEPM	National Environmental Protection Measure
NHMRC	National Health and Medical Research Council
NAPL	Non-Aqueous Phase Liquid
OCP	Organochlorine Pesticides
OPP	Organophosphate Pesticides
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated biphenyl
PID	Photo-ionisation detector
PSH	Phase Separated Hydrocarbons
QA/QC	Quality Assurance/Quality Control
RL	Reduced Level

RPD	Relative Percentage Difference
SEPP	State Environment Protection Policy
SVOC	Semi Volatile Organic Compounds
SWL	Standing Water Level
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
TRH	Total Recoverable Hydrocarbons
UST	Under-ground Storage Tank
VOC	Volatile Organic Compounds
VWRW	Victorian Water Resources Warehouse
-	On tables is 'not calculated'

Units

µg/kg	micrograms per kilogram (ppb)
µg/L	micrograms per litre
µs/cm	microseimens per centimetre
Ha	Hectare
mg/kg	milligrams per kilogram (ppm)
mg/L	milligrams per litre
m BGL	Metres below ground level
m TOC	Metres below top of casing
ppb	parts per billion
ppm	parts per million

1 INTRODUCTION

At the request of the Growth Areas Authority (GAA), a preliminary environmental contamination assessment has been carried out within the urban growth zone Clyde Creek and Thompsons Road, Clyde (PSP 53 and PSP 54). The work was authorised by Steve Dunn from the Grown Areas Authority in a letter dated 16 January 2012. The work presented herein is based on a fixed scope of works prepared by the GAA titled "Environmental, Hydrological and Geological Assessment of Clyde Creek and Thompsons Road Precinct Structure Plan Areas" (19 December 2011).

The purpose of the preliminary environmental contamination assessment was to identify the potential for contamination in the investigation areas (PSP 53 and PSP 54) based on historical activities, site observations and a limited soil sampling and testing program.

This report presents information on the site history, geology, the results of a limited soil sampling and testing program, an evaluation of the chemical testing results with respect to relevant criteria, the extent and implications of contamination revealed in the assessment and recommendations for further assessment prior to development.

2 SITE DETAILS

2.1 Location

The site consists of two investigation areas (PSP 53 and PSP 54) situated in Clyde.

PSP 53 extends south from Thompsons Road approximately 1.6 km to Hardys Road and approximately 3.3 km east from Berwick-Cranbourne Road.

PSP 54 extends south from Hardys Road approximately 3.3 km to Ballarto Road and approximately 2.5 km east from Clyde-Five Ways Road to Bells Road.

The investigation area (the site) covers approximately 700 hectares (PSP 53) and 1,153 hectares (PSP 54).

The site location is shown on Figure 1.

2.2 Zoning

The site currently consists of the following zones under the Casey Planning Scheme:

- The majority of the site consists of Urban Growth Zone
- Areas of Farming Zone (Schedule 2) in the north portion of the site (both PSP 53 and the north portion of PSP 54)
- Urban Flood Zone extending from the south west corner of PSP 53 to the south east corner of PSP 54 along Clyde Creek
- Special Use Zone (Schedule 1) in the south portion of PSP 53 (quarry)

- Residential 1 Zone with Public Use Zone for Education, Local Government and other Public Use and Public Parks and Recreation Zone in the south west corner of PSP 54.

The Planning Scheme maps are provided in Appendix A.

2.3 Land Use

The site land uses predominantly consists of properties used for grazing land, market gardens and residential. While portions of the PSP areas have been previously and/or currently used for quarrying[1], farm dumping and industrial purposes. The surrounding area consists of similar uses with the site and extensive residential development is also located to the west of the site.

2.4 Proposed Development

No proposed development plans were reviewed as part of this preliminary assessment. However, it is noted that the site area is intended to be rezoned for residential purposes and areas of commercial and mixed use.

[1] As indicated by the Department of Primary Industries "GeoVic" interactive Geology Map "Quarry and/or Mine Areas (http://mapshare2.dse.vic.gov.au/MapShare2EXT/imf.jsp?site=geovic)

3 GEOLOGY, HYDROGEOLOGY AND SURFACE WATER

3.1 GEOLOGY

3.1.1 PSP 53

The 1:63,360 Cranbourne Sheet of the Geological Survey of Victoria and GeoVic (online) database indicates the PSP 53 portion of the site is thought to be underlain by Tertiary age Baxter Sandstone consisting of ferruginous sandstone, sand, sandy clay and occasional gravel overlying Silurian age sandstone, siltstone, mudstone and shale consistent with the Murrindindi Supergroup. Quaternary aged dune deposits are thought to be overlying both the Tertiary age Baxter Sandstone and the Silurian aged Murrindindi Supergroup in the north west quadrant of the PSP 53 portion of the site. Quaternary age swamp and lagoon deposits are thought to be overlying both the Tertiary age Baxter Sandstone and the Silurian aged Murrindindi Supergroup in the north east quadrant of the PSP 53 portion of the site.

Soils across the PSP 53 area are considered to be moderately reactive with seasonal surface changes due to moisture changes. The Quaternary age swamp and lagoon deposits are considered likely to be highly reactive with surface movement anticipated between 0.4 m to 0.75 m as a result of seasonal moisture changes. Further discussion is provided in the Preliminary Geotechnical Investigation report prepared by Site Geotechnical Pty Ltd (October 2012).

3.1.2 PSP 54

The 1:63,360 Cranbourne Sheet of the Geological Survey of Victoria and GeoVic (online) database indicates the PSP 54 portion of the site is thought to be underlain by Tertiary age Baxter Sandstone consisting of ferruginous sandstone, sand, sandy clay and occasional gravel. Areas of Quaternary age swamp deposits consisting of peaty clay and clay overlying Tertiary age Baxter Sandstone appear to be present in the north west corner and in east corner (near Pound Road).

3.2 Hydrogeology

The Water Table Aquifers Map of South Western Victoria produced by the DNRE (which includes east of Melbourne and PSP 53 and 54) shows the majority of the site (predominantly the east portion) to be underlain by groundwaters with total dissolved solids (TDS) ranging from 3,501 mg/L to 13,000 mg/L. The north west and south west portions of the site is listed as being underlain by groundwaters with TDS ranging between 1,001 mg/L and 3,500 mg/L. This would classify the majority of the groundwater beneath the site as either segment B or C waters, as per the State Environment Protection Policy (SEPP) for Ground Waters of Victoria (1997).

Chemical data received in the groundwater database search (provided in Section 6) indicates variable TDS concentrations between 1,422 mg/L (segment B) to 5,880 mg/L (segment C) across the PSP areas. While a TDS concentration of 94.8 mg/L (segment A1) was recorded at a single bore location (site ID: 57370) in the east portion of PSP 53 and is likely to be isolated.

In order to maintain the protection of the beneficial uses of groundwater, the more sensitive groundwater segment evident across the PSP areas (segment B) has been adopted. The protected beneficial uses of segment B are listed below:

- Maintenance of ecosystems
- Potable mineral water supply
- Agriculture, parks and gardens
- Stock watering
- Industrial water use
- Primary contact recreation
- Buildings and structures.

3.3 Surface Water

The closest surface water features are Clyde Creek, which runs through the site between the north west corner and south east corner and a tributary of Cardinia Creek located approximately 650 m north east of PSP 53. Several large farm dams are present on some properties, particularly the market gardens.

3.4 Geology, Hydrogeology and Surface Water Summary

Based on the desktop hydrological investigation, groundwater salinity is variable across the PSP areas consisting of segment A1 in the east portion of PSP 53 and Segments B and C recorded across PSP 54.

The known use of groundwater in the region (irrigation, stock and domestic) and low salinity indicates it is reasonable to conclude that groundwater beneath the site could provide a supplementary source of water for a range of beneficial uses that may be applicable in an urban environment including potable water, irrigation of planted areas, filling of swimming pools, showering, household use for general purposes etc.

Limited groundwater depth data was available across the PSP areas with groundwater recorded between 0 m to 24 m depth. Due to the presence of shallow groundwater (0 m depth in water logged surface soils) within the Quaternary age swamp deposits it is expected that water intrusion into excavations and underground services is likely to be encountered in the north east portion of PSP 53.

Groundwater depth across the remaining PSP area is variable and based on older data (>2005) of unknown quality and collected during drought conditions. Further discussion of the Groundwater Database search results is provided in Section 6 of this report.

4 SITE HISTORY EVALUATION

We have reviewed the following sources of historical information:

- Aerial photographs;
- EPA Priority Sites Register; and
- Previous site assessment reports.

4.1 Aerial Photographs

Aerial photographs held by the Department of Sustainability and Environment from 1960 (PSP 53), 1962 (PSP 54), 1971, 1975, 1985, 1991 and 2004 and 2010 Google images were reviewed. Copies of the aerial photographs are shown in Appendix B.

Year	Description
1960	PSP 53 and PSP 54 appear well grassed and used predominately for grazing and cropping. Dwellings and associated farm sheds are spaced across the site. Numerous dams are visible across the site. Clyde Creek is visible running from the south west portion of PSP 53 towards the south east portion of PSP 54. Two treed areas are visible west of Pound Road along with small area of potential disturbance located in the area listed on geology maps as a former quarry.
1962	PSP 53 and PSP 54 appears well grassed and used for grazing and cropping with market gardens located in the west portion and a small residential area in the south west corner of the PSP 54 area. Clyde Creek is visible through the centre of PSP 54 between the north boundary and south east potion of PSP 54. Several drainage channels are located across the site which generally lead to Clyde Creek. Numerous dams can be seen across the assessment area.
1971	PSP 53 and PSP 54 remain primarily used for farming and grazing land, however the north portion of the PSP 53 appears to contain a large storage/industrial building and notable soil disturbance is visible nearby to the south and south west (quarry). Increased use of the south portion of the PSP 54 for market gardens is visible and several large dams are present adjacent/within the market garden areas.
1975	No significant changes to PSP 53 and PSP 54 or the surrounding area were noted, except for further soil disturbance in the north portion of PSP 53 around the quarry.
1985	Additional market gardens are visible in the west portion of PSP 53 and PSP 54 and further soil disturbance in the north portion of PSP 53 around the quarry and some additional soil disturbance west of Pound Road. No other significant changes to the PSP areas or the surrounding area are noted.

1991	A large square portion of soil disturbance/excavation (quarry works) is visible in the north portion of PSP 53 within the known quarry boundary. An area of soil disturbance/excavation is also visible south of Clyde creek in the south east corner of PSP 54.
2004	No significant changes to PSP 53 and PSP 54 or the surrounding area are noted, except for the further soil disturbance in the north portion of the PSP 53 around the quarry.
2010	No significant changes to PSP 53 and PSP 54 or the surrounding area are noted, except for the further soil disturbance in the north portion of PSP 53 around the quarry.

4.2 EPA Priority Sites Register

A review of the EPA Priority Sites Register has been undertaken. No sites were listed on the EPA Priority Sites Register nearby or within the assessment area.

4.3 Previous Preliminary Site Assessment Report 1625 Ballarto Road, Clyde Victoria - National Pacific Properties Pty Ltd

In November 2010 National Pacific Properties Pty Ltd conducted a preliminary site assessment at 1625 Ballarto Road, Clyde, Victoria. The assessment included a desktop study including geology, topography, review of historical information (including aerial photographs and Certificates of Title) and a site inspection.

Based on the site history review and site inspection it was concluded that there was low potential for any notable contamination to be present at the site.

No further recommendations were made in regards to additional investigation works at the site. Beveridge Williams notes that no soil sampling or testing was undertaken

4.4 Potential Contaminants

Based on the site history the following likely activities and potential contaminants have been listed in the tables below.

Site Activities	Potential Contaminants
Past agricultural (grazing) activities	Heavy metals, organochlorine pesticides (OCP)
Quarry/soil extraction/fill activities	Heavy metals, total recoverable hydrocarbons (TRH), polycyclic aromatic hydrocarbons (PAH)
Farming/market gardens	Heavy metals, OCP, organophosphorus pesticides (OPP), TRH
Storage of chemicals and fuels	Heavy metals, OCP, PAH, TRH, MAH

Possible farm dumps	Heavy metals, OCP, PAH, TRH, MAH, domestic waste, nitrate
Incineration areas	Heavy metals, PAH, TRH

Based on the observations made for the surrounding land uses (predominately agricultural) Beveridge Williams considers the possibility of contamination from off-site sources to be low.

5 SITE INSPECTIONS

Site inspections were carried out across PSP 53 and PSP 54 by a Beveridge Williams Environmental Scientist on 23 February (PSP 54) and 16 March (PSP 53 and remainder of PSP 54) 2012. The locations of potential contamination sources observed during the site inspections are provided in Figure 5. Photographs locations (Figure 6) and site photographs taken during the site inspection are shown in Appendix G. Due to limited access at some sites photographs have not been provided for every property.

A summary of the observations are provided in the tables below:

5.1 PSP 53

Address	Notes
1350 Pound Road	The property was not inspected. It is noted from aerial photographs and geological plans sourced from the Department of Sustainability and Environment (DSE) GeoVic maps that a small former quarry/soil extraction is located in the Farm Zone below high voltage electrical cables which are assumed to be within the electrical easement. No visual information with respect to the nature of backfill (if any) could be observed from the roadside.
1450 Pound Road (Photographs 1-3)	The property was occupied by a single brick residence in the north portion of the property. A metal shed was located to the north west of the house and was used as farm equipment storage. A single above ground storage tank (AST) was noted at the rear of the metal storage shed. An old stock pen and metal shed was also located further north of the house. The remainder of the property consisted of open grassed paddocks with wire fences.
7 Hardys Road (Photographs 4-6)	The property was occupied by a workshop/depot and machine storage for a groundwater drilling company, a crushed rock hardstand area to the east and west used for vehicle/truck parking (east) and storage of drilling machinery/equipment (west). A small above ground oil storage container was located along the south wall of the workshop. No fuel storage was observed at the property.
5998-9077 Berwick-Cranbourne Road (Photographs 7-9)	The property was occupied by a weatherboard residence/site office, horse stable and training pen in the south portion of the property. A single metal shed and hardstand area was located to the north of the stables and was used for feed and tractor storage. Three shipping containers were located further north and were used for storage of riding supplies. No fuel storage was observed at the property.
30 Hardys Road (Photographs 10-13)	The property comprised of an open grassed paddock used for stock grazing. A shallow drainage channel was located through the centre of the property that joined into Clyde Creek along the south boundary. A single dam was located in the north east portion of the property.
60 Hardys Road (Photograph 14)	The property was occupied by a single weatherboard residence in the south portion of the property. Two metal sheds were located to the north west of the house and were used as farm equipment storage and animal feed storage. An old stock pen and metal shed was also located further north of the house. An area used for hard rubbish (predominately wood) burning was located along the west boundary in the north portion of the property. The remainder of the property consisted of open grassed paddocks with wire fences.

Address	Notes
205-225 Hardys Road (Photographs 15-17)	The property was occupied by a single brick residence in the south portion. A single metal shed used for farm bike and tool storage. A crushed rock parking area was located to the east of the house. A hay shed and tractor storage was also located in the centre of the property to the north of the house. The remainder of the property consisted of open grassed paddocks with wire fences that were used for cattle grazing.
1790 Thompsons Road (Photographs 20-23)	The property consisted of an open grassed paddock used for stock grazing. A single gravel driveway with stock loading bay and holding pen was located along the east boundary and a single dam was located in the central portion of the property. A power substation was located in the south west portion of the property along with transmission lines extending east and west.
1850-1880 Thompsons Road (Photographs 18-19)	The property consisted of open grassed paddocks used for stock grazing with an old farmhouse, milking shed and holding/wash-down pen located in the central portion of the site. A single gravel driveway entered the site from Thompsons Road to the house and then ran east and west behind the house and milking shed. An additional storage shed was located to the east of the milking shed and was used to store farm tractors. No fuel storage was observed on the property.
1475 Pound Road (Photographs 24-27)	The majority of the property consisted of open grassed paddocks used for stock grazing with three dams located in the east portion of the property. Several metal storage sheds and a grain storage silo were located in the south portion of the property. The sheds were used for farm vehicle storage along with pesticides and sheep drench chemicals. An underground storage tank (UST) was located in the western most shed and an AST was located near the most northern shed. A sheep dip was noted north of the storage shed near a stock holding pen. A large hole used for dumping and incinerating of general waste consisting of rusted metals, plastic, wood and other rubbish was located further to the north of the sheds in an open paddock. Water logged soils were observed in the north and east portions of the property.
1525 Pound Road (Photographs 28-33)	The property consisted of open grassed paddocks used for stock grazing with an old residential house in the west portion of the site. Two metal storage sheds were located to the south of the house. The northern shed had a metal furnace attached and a pallet of lime bags were stored along the east wall of the shed. An area containing rusted scrap metal and an old AST was also located to the south of the southern shed. An area of dead grass and organic decomposition odour was noted immediately west of the shed, however the odour had dissipated during subsequent site visits.
1575 Pound Road (Photographs 34-35)	The property consisted of an open grassed paddock used for stock grazing. No fuel or chemical storage was observed at the property.

5.2 PSP 54

Address	Notes
300 Tuckers Road (Photographs 36-39)	The property consisted of open paddocks/farmland, a single weatherboard house present with former machine shed, hay shed and milking shed present to the east of the house. The machine shed had been converted into a dog run and milk shed used as storage. No fuel storage was observed at the property apart from a jerry can. An underground water tank for watering gardens and septic tank system were also present.
195 Tuckers Road (Photographs 40-45)	The property consisted of open paddocks/farmland used for horse breeding, 2 small residential dwellings present on site and used for site offices. A machine shed and hay shed were present to the east of the main office and a horse training circle was being used for tractor storage. The former milking shed had been converted to horse stables and storage with the stock pens still attached to the north of the shed. No fuel storage was observed at the property. A soil cutting with a crushed rock layer was present immediately east of the stables and was intended for a site office/shed to have been constructed (this did not occur).
430 Berwick Cranbourne Road (Photographs 46-49)	The property consisted of a single weatherboard house present in the south portion of the site and storage/entertainment shed present adjacent to the house. The site was used as a holding yard for vehicles (tree trimming trucks) and a single shipping container used as office/storage. A conversation with the site occupier indicated that it was thought that a diesel UST and former bowser was present at the front of the property (west portion).
25 Bells Road (Photographs 50-54)	The property consisted of open paddocks/farmland, a single brick house present with a hay shed to the south and a brick shed and wooden storage shed present to the south west of the house. No fuel storage was observed at the property.
400 Clyde Five Ways Road (Photographs 55-60)	The property consisted of two portions. The north portion was occupied by a large residential house with grass turf and garden beds to the east and west. The south portion consisted of a paddock with a large metal storage shed and smaller sheds along the south boundary. The soil to the west of the sheds was turned over for potential cropping. The north boundary of the paddock was being used for storage of old cars and metal signs. An old AST used for diesel was present adjacent to the cars.
440 Berwick Cranbourne Road (Photographs 61-63)	The property was accessed via a long driveway through paddocks from Berwick Cranbourne Road, two residences constructed from brick and weatherboard were noted at the site along with two horse event grounds covered in sand. No fuel storage was observed at the property.
75 Tuckers Road (Photographs 64-67)	The property consisted predominately of open paddocks used for grazing with a hay shed in the north portion of the site and a brick residential house in the central portion. Two garages were present to the west of the residence. An additional two old farm sheds used for storage of corrugated iron, a tractor and a 44 gallon drum were located to the south west of the residence. A diesel AST was present south of the storage sheds adjacent to a gate leading into the adjacent paddock.
290 Pattersons Road (Photographs 68-74)	The property comprised mostly of open grazing paddocks for cattle with the north portion occupied by a single residence and a series of machine storage sheds, hay shed and stables located to the south west of the residence. An old mechanical water pump was present in the paddock immediately south of the residence and a newer water pump housing was noted in the west paddock.

Address	Notes
100 Pattersons Road (Photographs 75-79)	The property consisted of open paddocks leased for market garden cropping. A portion of the property was occupied by two residential dwellings with water tanks and a former hay shed used as vehicle parking. A former milking shed with large storage tank located on the roof was present to the south of the two residences. No fuel storage was observed at the property.
25 Pattersons Road (Photographs 80-82)	The property consisted of predominately grazing land with a portion used for cropping. 3 storage sheds consisting of a large metal shed, a longer open shed previously used for machine storage/car parking and a small shed with bonded cement walls along with a truck loading yard were located in the south west portion. The storage sheds were used for crop storage/processing, machine storage/parking and storage of small amounts of farm chemicals including fungicide and pesticide. Two diesel ASTs were present adjacent to the large metal and bonded cement sheds and visible staining of the soils below the ASTs was evident.
90 Twyford Road (Photograph 83)	The property was occupied by a single residence consisting of a brick building, garage and landscaped areas to the north and south. A small area along the east boundary was used for paint storage.
230 Hardys Road (Photographs 84-88)	The property consisted predominately of open paddocks used for grazing. Two residential dwellings were present near the north boundary of the site along with several stables and event/training yards to the west. Two ASTs (one diesel and one unleaded) were located to the south west of the residences with a machine shed located further west. A paddock to the west of the stables and training yards was occupied by several greenhouses used for the cultivation of roses. A shed was present to the east of the greenhouses for processing and trimming roses and a second shed housing a groundwater bore pump, fertilisers, fungicides and pesticides was present immediately north of the greenhouses
1531 Ballarto Road (Photographs 89-92)	The property consisted of one large residence and open paddock located to the east. Property boundaries were lined by large cypress trees.
L1 275 Pattersons Road (Photographs 93-96)	A 1-2 acre property with a brick residence and several metal storage sheds housing truck and other machinery. No onsite fuel storage was observed at the property
436 Berwick Cranbourne Road (Photographs 97-100)	The property was occupied by a single brick residence with landscaped areas to the east and west. A small shed in the south east corner of the site was used for paint/empty paint tin storage.
289 Pattersons Road (Photographs 101-104)	The property consisted of a brick residence and open paddock area. Some small storage sheds housing lawn mower and general tools were located along the north boundary. No fuel storage was observed at the property.
130 Tuckers Road (Photographs 105-110)	The property consisted of a brick residence and open paddock. Several storage sheds were located to the south and west of the residence. An additional house was located to the east. The storage shed to the south housed general tools and equipment. No fuel storage was observed at the property.

Address	Notes
35 Tuckers Road (Photographs 111-114)	The property consisted of an open paddock. No structures were present on the site.
45 Tuckers Road (Photographs 115-118)	The property consisted of a brick residence with open paddock area to the west with old cement mixers, metal piping and other inert waste scattered across the area. Two storage sheds/garages were located to the west of the house. The storage shed immediately west of the house stored general tools and equipment including drills and oils. No fuel storage was observed at the property.
25 Tuckers Road (Photographs 119-120)	The property consisted of a brick residence and open paddock with a dam. A storage shed was located to the west of the house. The storage shed to the south housed general tools and equipment. No fuel storage was observed at the property.
1655 Ballarto Road (Photographs 121-124)	The property consisted of a brick residential house with gardens to the south. Storage sheds were located in the west portion of the site along with a truck loading yard/storage. Two large ASTs were presented adjacent to a smaller shed housing a fuel pump connected to the AST and adjacent to a carpark area in the return driveway track. No significant visible evidence of spills was noted.
200 Tuckers Road (Photographs 125-130)	The property was occupied by a former farmhouse now used as a lunch room and storage. Commercial market garden offices were located to the east of the former farmhouse and made from portable office buildings and shipping containers. Large sheds used for cleaning and processing of market garden crops were located to the east and refrigerated storage sheds were located further west. To the north of the storage/processing sheds a large mechanics shed used for vehicle maintenance was noted. A waste oil AST was present in the shed and it was stated by staff that this was pumped out once it reached a level marked on a fill meter. No significant staining was noted on the concrete slab of the shed. Immediately north of the maintenance shed four ASTs storing fuels were noted along with several 44 gallon drums. Further north a chemical storage shed containing supplies of pesticide, fungicides and other farming chemicals was noted. Immediately east of this shed, three water filling/mixing tanks were noted and a waste disposal cage containing the emptied chemical containers was located to the west. A truck parking shed and a second residence were noted further east.
30 Twyford Road (Photographs 131-136)	The property was occupied by a single residential house and commercial market gardens. Commercial market garden offices and lunch rooms were located to the north west of the residence. Large sheds used for the cleaning, processing and for refrigerated storage were located to the west of the site office. A drainage channel was located to the north of the storage/processing sheds. Two diesel bowsers for underground storage tanks were located to the east of the offices and storage sheds. A small raised area of soil (old loading platform) containing fill material was also noted south of the storage sheds adjacent to a dirt carpark. A single chemical storage shed was observed to the north of the site office.

Address	Notes
Lot 2 Hardys Road (Photographs 137-140)	The property was occupied by a single residential house and commercial market gardens with Clyde Creek running from the north west portion to the south east portion. Market gardens were located to the south, east and west of the residence and two dams were located in the central portion and in the south east corner of the property. Several storage/wash down sheds associated with the market gardens were noted on the opposite side of Clyde Creek. A large water storage tank for irrigation was located to the south of the sheds and was connected to a smaller tank with chemical storage for dilution. Several empty chemical containers used for pesticides and fungicides were present adjacent to the water tank.
325 Tuckers Road (Photographs 141-144)	The property included a brick residence and storage sheds to the south and open paddock to the west and south. The sheds stored general tools and equipment including vehicles and farm equipment. The paddock area to the south was occupied by several old vehicles including a tractor, two shipping containers used for general storage and animal shelters that were not in use. The paddocks to the west were vacant and grassed with a small dam located in the north portion. No onsite fuel storage was observed at the property.
30 Hardys Road (Photographs 10-13)	The property consisted of a single weatherboard residence and two storage sheds (one metal and one wood) and an open paddock area to the south. The sheds stored general tools and equipment including farm equipment and hay bales. The paddock area to the south was vacant and grassed. One old AST which was no longer used was located next to a tree to the south of the residence. A second active diesel AST was located along the back of a metal shed.
420 Berwick-Cranbourne Road (Photographs 145-148)	The property consisted of a grassed paddock used for stock grazing. Clyde Creek was located through the centre of the site. Four dams were located across the property. A residential property was located in the east portion of the property along with five sheds consisting of a chicken coop and storage shed used for farm vehicles, hay and tools. An additional hay shed was located in the west portion of the property along with a single diesel AST.
290 Pattersons Road (Photographs 149-152)	The property was occupied by commercial market gardens. Commercial market garden offices and storage sheds were located in the south portion of the site. Large sheds used for cleaning, processing and refrigerated storage were also present in this area. Several greenhouses were located immediately north of the sheds and three ASTs on a concrete hardstand were located along the north wall of the vehicle maintenance shed. A small chemical storage shed was located along the east wall of the greenhouses along with a water storage tank and adjacent groundwater production bore.
350 Clyde-Fiveways Road (Photographs 153-154)	The property was occupied by a single brick residence with landscaped areas to the east and west in the north portion. A wooden fenced stock area was located to the north of the residence. The remainder of the site consisted of open grassed paddocks with wire fences. No fuel storage was observed at the property.

6 GROUNDWATER DATABASE SEARCH

A groundwater database search was conducted by Sinclair Knight Merz. Results of the groundwater database reported 104 groundwater bores listed in a 3 km radius of the site. The groundwater bore locations are shown in Figure 3 and the tabulated groundwater database search results have been provided in Appendix C.

6.1 Listed Uses

The listed use of the groundwater bores within a 3 km radius were recorded as the following:

- 17 bores were listed for investigation and/or observation use
- 41 bores were listed for stock and domestic uses
- 11 were listed for irrigation use
- 14 were listed for stock use
- 4 were listed for irrigation, stock and domestic uses
- 3 were listed for dairy, stock and domestic uses
- 4 were listed for domestic use
- 1 bore was listed as non-groundwater (unknown use)
- 9 bores were listed with an unknown use.

6.2 Groundwater Depths

Of the 104 groundwater bores listed, 32 bores have recorded aquifer and water level information. Based on a preliminary review of the groundwater database, the upper aquifer across the PSP area is expected to be shallow in part of the PSP areas. A standing water level of 3 m below ground level (mBGL) in the centre of PSP 54 (bore 57177) was noted. Standing water levels (SWL) are listed between 0 mAHD near the north east corner of PSP 53 (bore 113068) and 24.4 mAHD in the east portion of PSP 54 (bore 57331).

During the property inspections areas of water logged soils were observed in the north east portion of PSP 53 and along Clyde Creek indicating potentially shallow groundwater in these areas. Due to anticipated shallow groundwater there is a potential for impact on the construction of underground services and swelling and contraction of soils due to change in moisture content within these areas.

6.3 Salinity

Of the 104 groundwater bores listed, 14 bores located across PSP 53 and PSP 54 have recorded chemical data. Electrical conductivity (EC) from these bores ranged from 2,370 µS/cm to 9,800 µS/cm and pH ranged from 6.3 - 8.7. A single bore (bore 57242 on the ridge in the east portion of PSP 53) had a listed EC of 158 µS/cm.

TDS (salinity) across the study area ranged from low salinity (segment A groundwater) to moderately saline (segment C groundwater). The average electrical conductivity across the PSP areas is listed as being 6,028 µS/cm (3,014 mg/L TDS). Shallow and highly saline groundwater has the potential to affect future underground services and infrastructure as well as changes in moisture content caused by a rise and fall of the ground level. Further assessment is warranted to establish groundwater levels and salinity and potential limitations to the locations and construction of underground services, buildings or other subsurface infrastructure.

6.4 SUMMARY

Based on the groundwater database search results and site observations it is noted that shallow groundwater (due to water inundation and groundwater level movements due to moisture changes) and water logged soils in the north east corner of PSP 53 and maximum TDS concentration of 6,566 mg/L (9,800 µS/cm) may constrain underground service design and construction.

Recorded TDS concentrations in groundwater predominantly ranged between segment B and segment C. As the groundwater TDS concentrations are variable the protected beneficial uses for segment B must be adopted as the most sensitive. The protected beneficial uses of segment B groundwaters are:

- Maintenance of ecosystems
- Potable mineral water supply
- Agriculture, parks and gardens
- Stock watering
- Industrial water use
- Primary contact recreation
- Buildings and structures.

As a result, due to the variable nature of the depth and salinity of groundwater across the PSP areas further assessment is warranted to establish groundwater levels and salinity within proposed servicing locations and confirm the groundwater segment and the protected beneficial uses which must be maintained. In addition, an investigation of any of vulnerable aquifers (i.e. segment A and shallow aquifers) should be undertaken as part of the further assessment to evaluate potential impacts as a result of proposed development works.

7 SITE TOPOGRAPHY

The site generally sloped towards the south east with the site highpoint being a ridge through the central portion of PSP 53. North of the ridge the topography then slopes down towards the north.

The low points of the site are located along Clyde Creek in the central to south east portions and from the south west corner of PSP 53 down to the south east corner of PSP 54. An additional low point was located in the north east corner of PSP 53 sloping from the ridge in the centre of the site down to the north east towards Cardinia Creek.

The regional topographic contours are shown along with the underlying geology on Figure 2.

8 SOIL ASSESSMENT CRITERIA

Given the site area is intended to be rezoned for residential purposes the intended use of the land is a sensitive use, the State Environment Protection Policy (SEPP), Prevention and Management of Contamination of Land (June 2002) requires the following beneficial uses to be protected:

- Maintenance of modified and highly modified ecosystems;
- Human health;
- Buildings and structures;
- Aesthetics; and
- Production of food, flora and fibre.

To determine whether the level of any identified contaminant poses an unacceptable risk to the protected beneficial use, the following soil assessment criteria have been selected, as per the objectives of the SEPP (Prevention and Management of Contamination of Land).

- *Maintenance of modified and highly modified ecosystems* – National Environment Protection (Assessment of Site Contamination) Measure - Ecological Investigation Levels (NEPM EIL).

  Where no NEPM EIL criteria exist, ANZECC B levels (published environmental investigation level guidelines from the Australian and New Zealand Environment and Conservation Council/National Health and Medical Research Council), EPA Fill criteria (EPA Publication "Soil Hazard Categorisation and Management" published by the Environment Protection Authority of Victoria, which lists the maximum concentrations of contaminants allowed in soil to be disposed of as clean fill Category B and Category C contaminated soil) and NSW EPA threshold concentrations for sensitive land use have been adopted;

- *Human health* – National Environment Protection (Assessment of Site Contamination) Measure, Human health based investigation levels for standard residential with garden/accessible soil, children's day-care centres, kindergartens, preschools and primary schools (NEPM HIL A);

- *Buildings and structures* – Contamination must not cause the land to be corrosive to or adversely affect the integrity of structures or building materials;

- *Aesthetics* – Contamination must not cause the land to be offensive to the senses of human beings; and

- *Production of food, flora and fibre* – Contamination of land must not adversely affect produce quality or yield.

To determine the level of risk to the PSP areas and provide our recommendations for further works the Department of Sustainability General Practice Note "Potentially Contaminated Land" (June 2009) and GAA Publication "Growth Area Model Planning Permit Conditions - A Manual for Implementation" (October 2011) have also been referenced.

9 METHODOLOGY

All fieldwork was carried out by an environmental scientist who logged the surface samples in accordance with the Unified Soil Classification System and obtained disturbed soil samples at the nominated depths (where possible).

The equipment used to recover the required soil samples was cleaned between each borehole and prior to each sample being taken in accordance with the following procedures:

- All adhered soil and/or other matter was removed by means of scrubbing and flushing with clean water;
- The hand sampling equipment was then scrubbed in a phosphate free detergent solution before being rinsed copiously in clean water; and
- Disposable rubber nitrile gloves worn by the scientist were replaced prior to the recovery of each sample.

The soil samples were placed into acid-rinsed and solvent-washed screw top glass jars supplied by the analysing laboratory. The jars were tightly closed and kept on ice in a portable cooler until delivery to the laboratory under chain of custody procedures.

Each soil sample was assessed both visually and by odour for evidence of contamination with a ranking on a scale of 0 - 3 as follows:

0 No odour or visual evidence of contamination;

1 Slight visual evidence of contamination and/or slight odour;

2 Visual evidence of contamination and/or odour;

3 Obvious visual evidence of contamination and/or strong odour.

A photoionization detector (PID) was used to check for the presence of volatile organic compounds in all samples collected. The volume of soil used for obtaining PID readings was kept uniform for all samples tested. During sampling an extra sample was collected and placed in a properly sealed snap lock plastic bag. After approximately 15 minutes the plastic bag was pierced with the probe to obtain a reading. The PID unit was calibrated at the beginning and tested on completion of each day.

All chemical testing was undertaken by the following NATA registered analytical laboratories:

- Primary Testing Laboratory – Ecowise Australia Pty Ltd (ALS Water Resources Group); and
- Secondary Testing Laboratory – MGT-LabMark Pty Ltd.

The detailed results of the chemical testing programs undertaken are presented in Appendix F, together with quality control data obtained by ALS Water Resources Group and MGT - Labmark as part of their quality assurance/quality control procedures.

10 LIMITED SOIL ASSESSMENT – SURFACE SAMPLES

In accordance with the scope of works provided by GAA in the "Environmental, Hydrological and Geological Assessment of Clyde Creek and Thompsons Road Precinct Structure Plan Areas" with a limited number soil samples across PSP 53 and PSP 54, Beveridge Williams has conducted the following soil sampling and chemical testing program on a broad grid at locations of possible contamination. However, due to the limited number of samples, identified hotspots of potential contamination have not been sampled as based on the site activities in these areas it is expected that some contamination is likely to be present and warrants a more detailed investigation and potential remediation works. Based on this the following works are considered representative of the broad background condition of the PSP areas.

10.1 Fieldwork –Surface Samples (8 May 2012)

On 8 May and 2 July 2012 surface samples were collected from 15 locations (SS01 to SS15) across the PSP 53 and PSP 54 areas. Soil samples were collected at the surface between 0.0 and 0.1 m depth.

10.2 Fieldwork – Soil Observations, Contamination Rankings and PID readings

The surface material consisted of brown sandy silt and grey/brown silty sand/sand across the majority of the PSP areas and dark brown clayey silt (in SS07, SS14 and SS15) in the north and west portions. All soil samples recorded a contamination ranking of 0 since no obvious odours, staining or other indicators of contamination were observed. PID readings between 2.1 ppm and 8.3 ppm were recorded during sampling on 8 May 2012 and are considered to be representative of the background readings.

Logs of the surface samples are presented in Appendix D. The locations of the surface samples are shown on Figure 4.

10.3 Chemical Testing Program

The chemical testing program for individual samples is detailed in the table below.

Sample Numbers	Testing Program
0805-SS01, 0805-SS02, 0805-SS03, 0805-SS04, 0805-SS05, 0805-SS06, 0805-SS07, 0805-SS08, 0805-SS09, 0805-SS10, 0805-SS11, 0805-SS12, 0805-SS13, 0805-SS14, 0805-SS15	Heavy metals, PAH, OPP, TRH, BTEX-n and TPH
0207-SS01, 0207-SS02, 0207-SS03, 0207-SS04, 0207-SS05, 0207-SS06, 0207-SS07, 0207-SS08, 0207-SS09, 0207-SS11, 0207-SS12, 0207-SS13, 0207-SS14, 0207-SS15	OCP

10.4 Results of Chemical Testing

With the exception of selected heavy metals (arsenic, nickel, vanadium and zinc) reported above the NEPM EIL criteria in six locations (SS01, SS06, SS11 and SS13 to SS15) all reported analyte concentrations were below the adopted criteria or below laboratory detection limits.

Detectable concentrations of OCP (including DDT, DDD, DDE, Deildrin and Endosulfan (1 and 2)), TPH and TRH were reported in several samples (SS05, SS06, SS07, SS08, SS09, SS10, SS11, SS13 and SS15).

Tabulated results of the chemical testing program undertaken on soil samples are shown in Table 1 (Appendix E). NATA Laboratory Certificates of Analysis for soil samples are presented in Appendix F.

10.5 SUMMARY

Based on the chemical testing results reported across the site it is considered that the risk of significant wide spread contamination is low. However, based on the previous uses across PSP 53 and PSP 54 (cropping/market gardens and historic pesticide use associated with these activities), the elevated concentrations of heavy metals (arsenic, nickel, vanadium and zinc) and detectable concentrations of OCP, TPH and TRH, there is potential for higher contaminant concentrations across PSP 53 and PSP 54.

11 QA/QC

Secondary laboratory testing of one split sample for QA/QC purposes was undertaken by MGT-Labmark, while one field duplicate sample and one rinsate sample were tested by ALS Water Resources Group.

Tabulated QA/QC data is provided in Tables 2 and 3 (Appendix E).

The chemical test results from the original samples tested by ALS Water Resources Group are considered to be acceptable in terms of data quality and have been used for all discussion and interpretation relating to the preliminary environmental contamination assessment.

12 DISCUSSION & CONCLUSIONS

12.1.1 Summary of Findings

Based on the site history, preliminary chemical testing program and observations made during the site inspection, Beveridge Williams considers that the risk of extensive soil contamination across PSP 53 and PSP 54 is low. However, evidence of potentially contaminating activities (i.e. market gardens, cropping including past use of pesticides) and contamination sources (e.g. chemical storage sheds, fuel storage) were identified on some properties. Detectable concentrations of heavy metals (arsenic, nickel, vanadium and zinc) were reported above environmental guidelines (NEPM EIL) and contaminants including OCP and petroleum hydrocarbons were detected in several samples across PSP 53 and 54 indicating potential for further contamination.

Whilst it is anticipated that the risk of significant contamination across PSP 53 and PSP 54 is low, Beveridge Williams considers that there are likely to be localised areas of contamination in the vicinity of contamination sources which include but are not limited to: a former quarry, above ground and underground storage tanks, sheep dip, chemical storage, farm dumps, fill material, farm sheds and workshops.

Victorian Groundwater Database information and observed water logging of soils in the north east portion of PSP 53 and along Clyde Creek indicate potential for shallow groundwater, while varying groundwater salinities (segments A1, B and C) were recorded across PSP 53 and PSP 54. Observed differences in vegetation across PSP 53 and 54 may be due to variable salinity in the soil and groundwater.

On the basis of the preliminary environmental contamination assessment Beveridge Williams recommends the following additional works (as a minimum).

12.2 PSP 53

12.2.1 Hydrogeological Investigation

Beveridge Williams recommends that a hydrogeological assessment(s) be undertaken by a suitably qualified hydrogeologist or environmental professional to identify if groundwater conditions may constrain development of the area. The hydrogeological investigation should include as a minimum:

- An assessment of depth to groundwater;
- Confirmation of the protected beneficial uses which must be maintained; and
- Provide commentary and/or recommendations on any vulnerable aquifers (e.g. shallow or potable water quality – segment A) which may be present in the study area that require protection from inappropriate development.

Due to the recorded segment A1 groundwater in the north east portion of PSP 53 and variable salinity (segments B and C) recorded across the remainder PSP 53, consideration should be given to a hydrogeological assessment of PSP 53 on a catchment or precinct wide basis.

12.2.2 Statutory Environmental Audit

In reference to DSE publication "Potentially Contaminated Land - General Practice Note" (June 2005), the quarry (an extractive industry) located on Hardys Road and the electrical substation located on Berwick-Cranbourne Road are considered to be high risk from a contamination point of view. In the absence of detailed contamination assessment information for either site, Beveridge Williams recommends that prior to the commencement of any use for a sensitive purpose, building works and/or certification of a plan of subdivision the following must be provided to the responsible authority, either:

- A Certificate of Environmental Audit issued for the relevant land in accordance with Part 1XD of the Environmental Protection Act 1970; or
- A Statement of Environmental Audit issued for the relevant land in accordance with Part 1XD of the Environmental Protection Act 1970 stating that the environmental conditions of the relevant land are suitable for a sensitive use (with or without conditions on the use of the site).

12.2.3 Further Contamination Assessment

For remaining land parcels within PSP 53 it is recommended that prior to development works associated with subdivision (this requirement does not apply to boreholes and excavation associated with an environmental assessment), an environmental site assessment of the properties by a suitably qualified environmental professional be undertaken in order to verify that no significant contamination is present across the properties which includes the following:

- An assessment of the potential level and nature of contamination as a result of property activities comprising both grid testing across the property and target testing at potential contamination sources. Where contaminants have been detected or insufficient information is available, Beveridge Williams recommends a suggested minimum grid sample frequency of not less than 1 sample location per hectare. Further assessments should adopt suitable criteria for the protected beneficial uses as detailed in the SEPP "Prevention and Management of Contamination of Land" (2002) which makes reference to the investigation levels detailed in the National Environment Protection Measure "Assessment of Site Contamination" (NEPM) Schedules A and B (1999). Further advice should be provided regarding contamination clean up and/or management of contamination found during any further contamination assessments. Investigations should be carried out in sufficient detail to satisfy the requirements detailed in the NEPM and soil sampling should generally be conducted in accordance with Australian Standard 4482.1 "Guide to the investigation and sampling of sites with potentially contaminated soil" (2005); and
- A geotechnical evaluation including soil salinity and provision of advice regarding possible constraints and construction requirements to the proposed development as a result of soil salinity issues (if any) in accordance with the recommendations made in the "Preliminary Geotechnical Investigation" (Site Geotechnical Pty Ltd, October 2012).

12.3 PSP 54

12.3.1 Hydrogeological Investigation

Beveridge Williams recommends that a hydrogeological assessment(s) be undertaken by a suitably qualified hydrogeologist or environmental professional to identify if groundwater conditions may constrain development of the area. The hydrogeological investigation should include as a minimum:

- An assessment of depth to groundwater;
- Confirmation of the protected beneficial uses which must be maintained; and
- Provide commentary and/or recommendations on any vulnerable aquifers (e.g. shallow or potable water quality – segment A) which may be present in the study area that require protection from inappropriate development.

Consideration should be given to a hydrogeological assessment of PSP 54 on a catchment or precinct wide basis.

12.3.2 Further Contamination Assessment

It is recommended that prior to development works associated with subdivision (this requirement does not apply to boreholes and excavation associated with an environmental assessment), an environmental site assessment of the properties by a suitably qualified environmental professional be undertaken in order to verify that no significant contamination is present across the properties which includes the following:

- An assessment of the potential level and nature of contamination as a result of property activities comprising both grid testing across the property and target testing at potential contamination sources. Where contaminants have been detected or insufficient information is available, Beveridge Williams recommends a suggested minimum grid sample frequency of not less than 1 sample location per hectare. Further assessments should adopt suitable criteria for the protected beneficial uses as detailed in the SEPP "Prevention and Management of Contamination of Land" (2002) which makes reference to the investigation levels detailed in the National Environment Protection Measure "Assessment of Site Contamination" (NEPM) Schedules A and B (1999). Further advice should be provided regarding contamination clean up and/or management of contamination found during any further contamination assessments. Investigations should be carried out in sufficient detail to satisfy the requirements detailed in the NEPM and soil sampling should generally be conducted in accordance with Australian Standard 4482.1 "Guide to the investigation and sampling of sites with potentially contaminated soil" (2005);
- In relation to 130 Tuckers Road (noting that no contaminants were reported in sample SS03), an assessment of the potential level and nature of contamination as a result of property activities comprising grid testing across the property and target testing at potential contamination sources should be undertaken. Grid sampling (as determined by a suitably qualified environmental consultant) should be undertaken to satisfy the requirements of the SEPP "Prevention and Management of Contamination of Land" (2002) which makes reference to the investigation levels detailed in the National Environment Protection Measure "Assessment of Site Contamination" (NEPM) Schedules A and B (1999). Further

advice should be provided regarding contamination clean up and/or management of contamination found during any further contamination assessments. Investigations should be carried out in sufficient detail to satisfy the requirements detailed in the NEPM and soil sampling should generally be conducted in accordance with Australian Standard 4482.1 "Guide to the investigation and sampling of sites with potentially contaminated soil" (2005); and

- A geotechnical evaluation including soil salinity and provision of advice regarding possible constraints and construction requirements to the proposed development as a result of soil salinity issues (if any) in accordance with the recommendations made in the "Preliminary Geotechnical Investigation" (Site Geotechnical Pty Ltd, October 2012).

13 LIMITATIONS

Soil and rock formations are variable. The surface sample description indicate the approximate surface conditions only at the specific test locations. Boundaries between zones on the descriptions are often not distinct, but rather are transitional and have been interpreted. The precision with which surface conditions are indicated depends largely on the frequency and method of sampling, and the uniformity of subsurface conditions.

Chemical conditions described in this report refer only to those conditions indicated by analysis of a limited number of soil samples obtained at the points and under the circumstances noted in the report.

These conditions may differ due to the variability of contaminant concentrations in imported fill material or in natural soil as a consequence of activities on the site or adjacent sites. Where conditions encountered at the site or the proposed development differ significantly from those anticipated in this report, it is a condition of this report that Beveridge Williams & Co Pty Ltd be notified of the changes and provided with an opportunity to review the recommendations of this report.

BEVERIDGE WILLIAMS & CO PTY LTD

Prepared by

Adam Hayes

Environmental Scientist

Reviewed by

Andrew Mellett

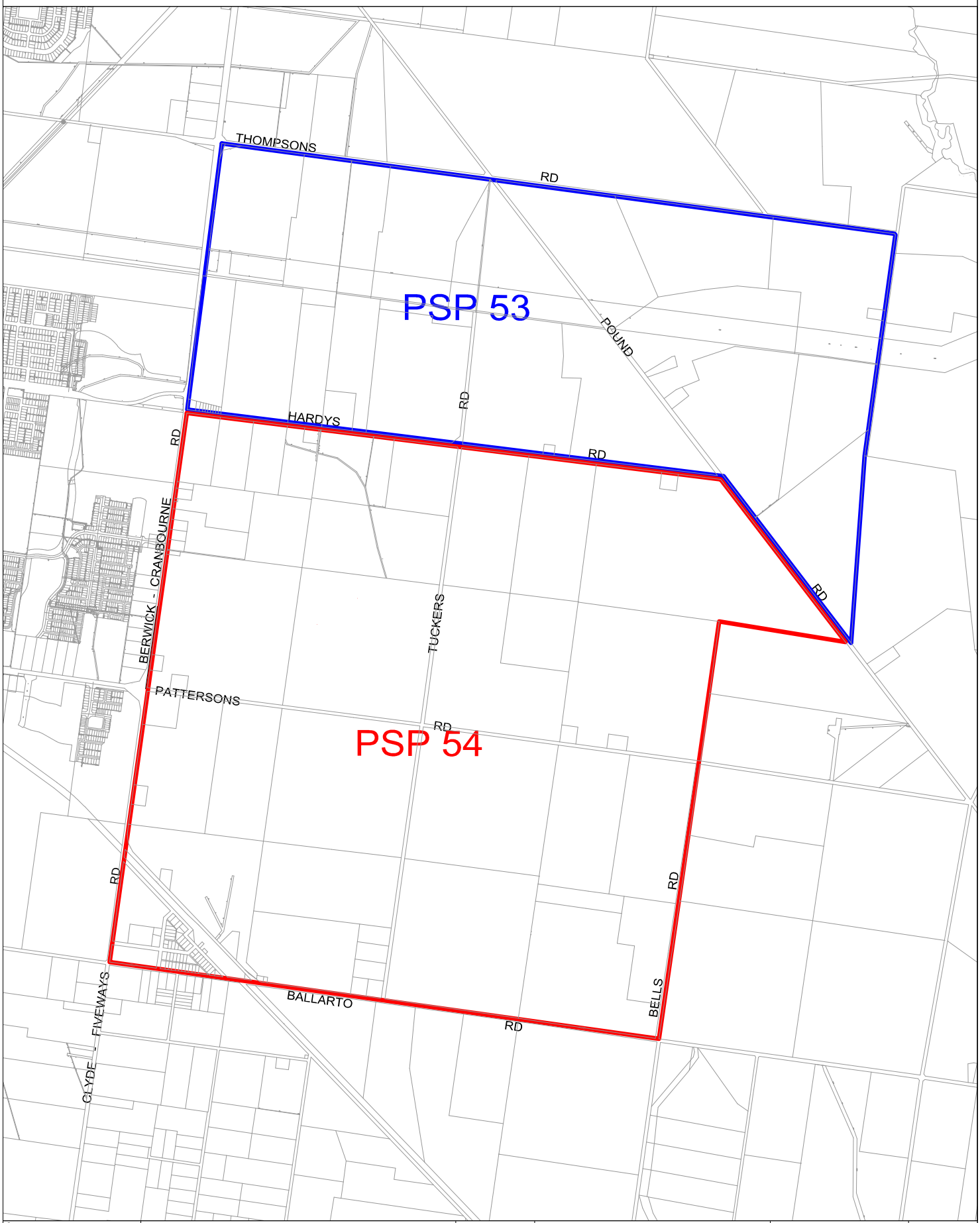
Manager Environmental Division

FIGURES

PSP 53 PSP 53

PSP 54 PSP 54

300 200 100 0 300 600 900 1,200 1,500 m



Rev Description Date By App.

Project Name: PRELIMINARY ENVIRONMENTAL CONTAMINATION ASSESSMENT, CLYDE CREEK & THOMPSONS ROAD, CLYDE (PSP 53 & PSP 54)

Drawing Title: SITE LOCATION PLAN

Client: GROWTH AREAS AUTHORITY

Drawn A.HAYES Date 20.01.2012

Approved M.KRAKIC Date 27.01.2012

Sheet 01

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Scale 1:30,000 @ A4

Project Ref. 1101542 Figure No. 01 Rev. 0

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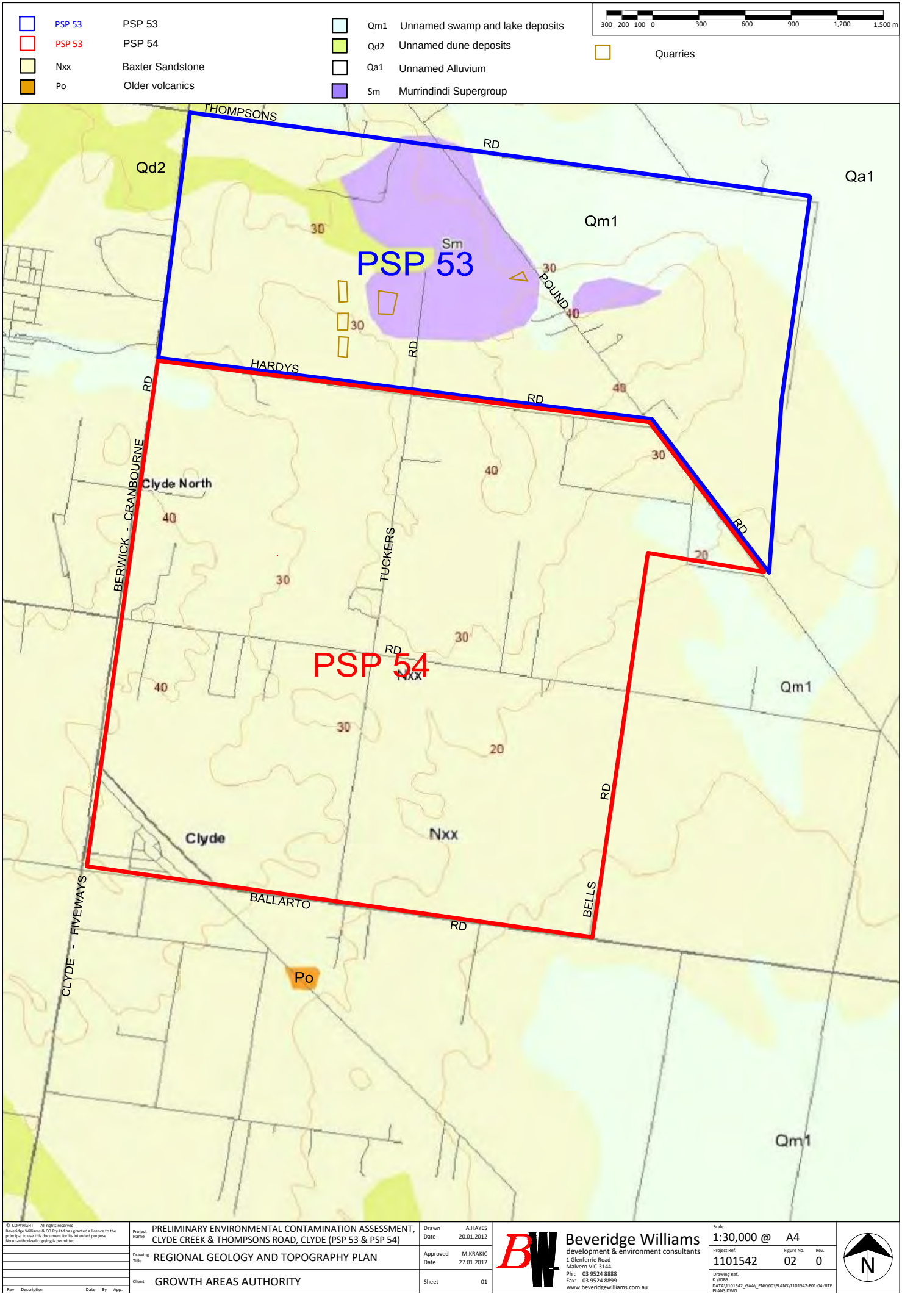

Project Name	PRELIMINARY ENVIRONMENTAL CONTAMINATION ASSESSMENT, CLYDE CREEK & THOMPSONS ROAD, CLYDE (PSP 53 & PSP 54)
Drawing Title	REGIONAL GEOLOGY AND TOPOGRAPHY PLAN
Client	GROWTH AREAS AUTHORITY

Drawn	A.HAYES
Date	20.01.2012
Approved	M.KRAKIC
Date	27.01.2012
Sheet	01

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Scale	1:30,000 @ A4
Project Ref.	1101542
Figure No.	02
Rev.	0
Drawing Ref.	K:\JOBS DATA\1101542_GAA_ENV\00\PLANS\1101542-F01-04-SITE PLANS.DWG

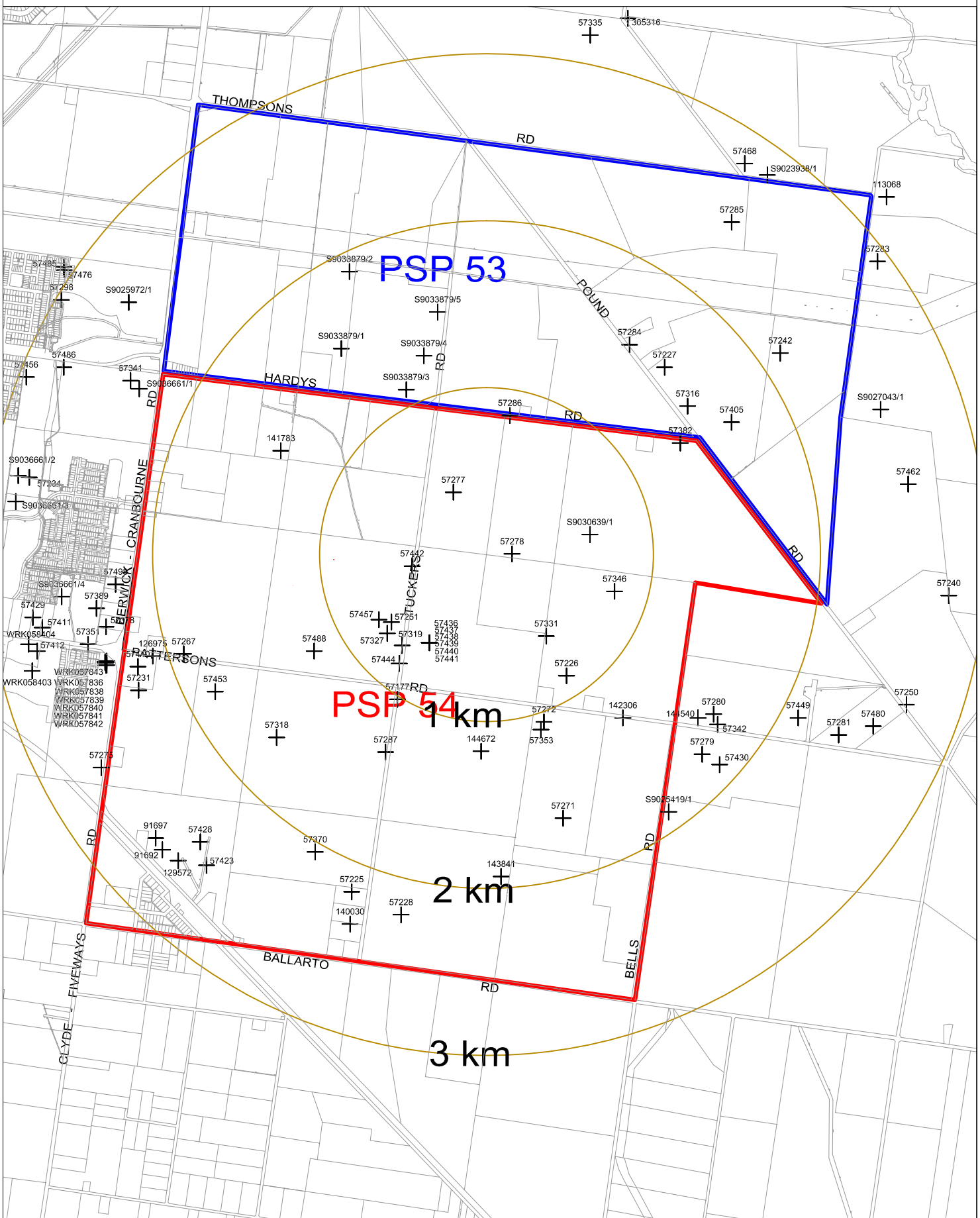
Rev	Description	Date	By	App.

PSP 53 — PSP 53

PSP 53 — PSP 54

57468 — Approximate Location of Groundwater Bore Based on GMS Database Search

300 200 100 0 300 600 900 1,200 1,500 m



Project Name	PRELIMINARY ENVIRONMENTAL CONTAMINATION ASSESSMENT, CLYDE CREEK & THOMPSONS ROAD, CLYDE (PSP 53 & PSP 54)
Drawing Title	GROUNDWATER DATABASE BORE LOCATION PLAN
Client	GROWTH AREAS AUTHORITY
Drawn	A.HAYES 25.01.2012
Approved	M.KRAKIC 27.01.2012
Sheet	01

Rev Description Date By App.

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Project Ref. 1101542 | Figure No. 03 | Rev. 0

Drawing Ref. K:\JOBS DATA\1101542_GAA_ENV\00\PLANS\1101542-F01-04-SITE PLANS.DWG

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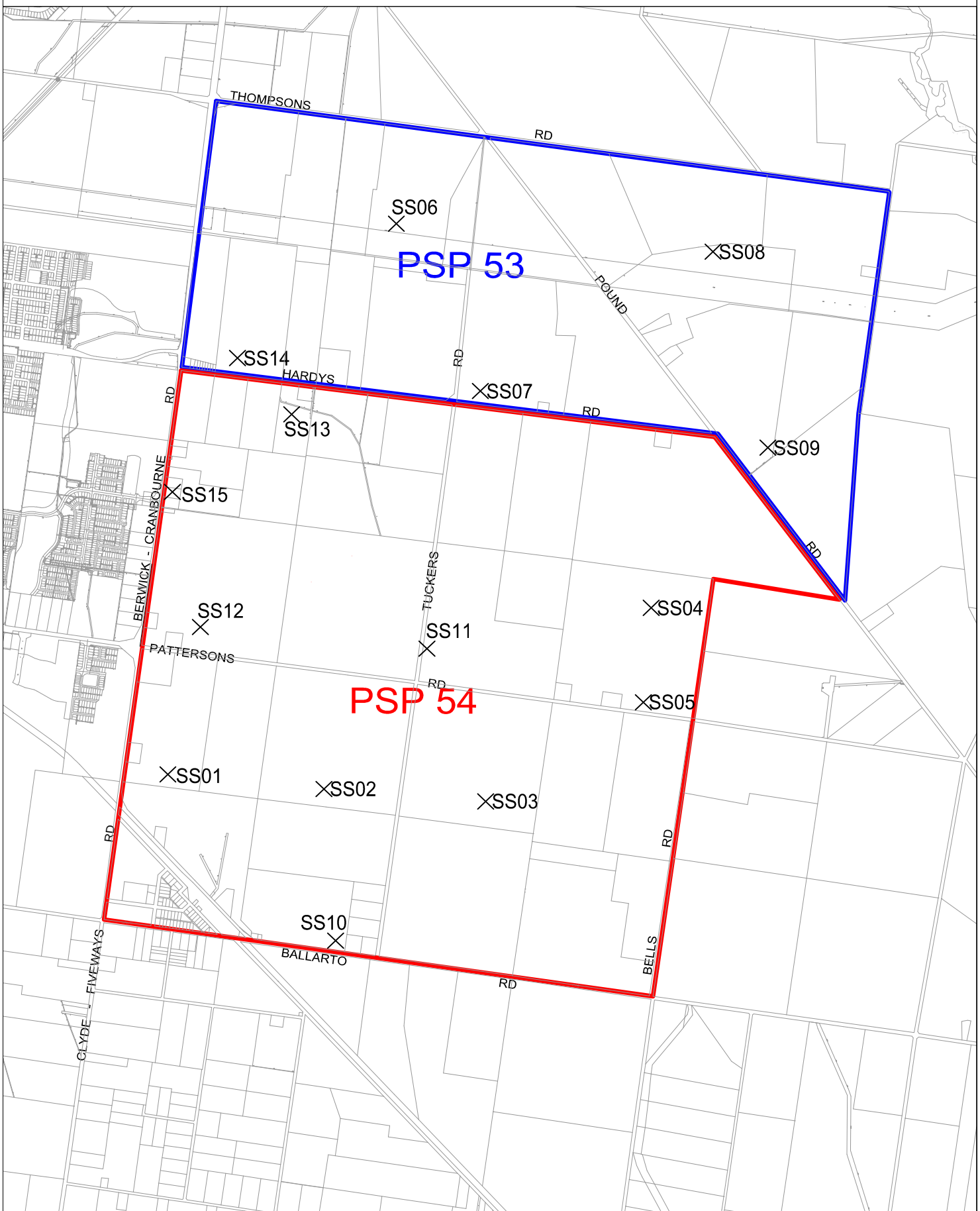
PSP 53 PSP 53

PSP 54 PSP 54

SS01 Soil Sample Location (Beveridge Williams)

300 200 100 0 300 600 900 1,200 1,500 m



Project Name: PRELIMINARY ENVIRONMENTAL CONTAMINATION ASSESSMENT, CLYDE CREEK & THOMPSONS ROAD, CLYDE (PSP 53 & PSP 54)

Drawing Title: SAMPLE LOCATION PLAN

Client: GROWTH AREAS AUTHORITY

Drawn A.HAYES Date 20.01.2012

Approved B.CLAY Date 15.06.12

Sheet 01

Rev Description Date By App.

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Project Ref. 1101542 Figure No. 04 Rev. -

Drawing Ref. K:\JOBS DATA\1101542_GAA_ENV\00\PLANS\1101542-F01-04-SITE PLANS.DWG

N

Property not inspected - due to access restrictions or not approved by property owner

Phase 1 Site Assessment with Limited Soil Sampling

Environmental Audit Required

Approximate Location of Identified Potential Source of Contamination

300 200 100 0 400 800 1,200 1,600 2,000 m

PSP 53

PSP 54

THOMPSONS RD

HARDYS RD

PATTERSONS RD

BALLARTO RD

BERWICK - CRANBOURNE RD

TUCKERS RD

POUND RD

CLYDE - FIVEWAYS RD

BELLS RD

1 Underground Storage Tank/s (UST)

2 Above-ground Storage Tank/s (AST)

3 Chemical storage

4 Mechanical workshop

5 Stock pen/holding yard

6 Quarry

7 Stock dip

8 Fill material

9 Burried waste/dumped rubish

Rev Description Date By App.

Project Name: PRELIMINARY ENVIRONMENTAL CONTAMINATION ASSESSMENT, CLYDE CREEK & THOMPSONS ROAD, CLYDE (PSP 53 & PSP 54)

Drawing Title: IDENTIFIED POTENTIAL CONTAMINATION SOURCES AND RECOMMENDED FURTHER ASSESSMENT

Client: GROWTH AREAS AUTHORITY

Drawn A.HAYES
Date 29.05.12
Approved B.CLAY
Date 15.06.12
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Scale 1:20,000 @ A3

Project Ref. 1101542 Figure No. 05 Rev. 0

Drawing Ref. K:\JOBS DATA\1101542_GAA_ENV\00\PLANS\1101542-F05-SITE AREAS AND POTENTIAL CONTAMINATION SOURCES.DWG

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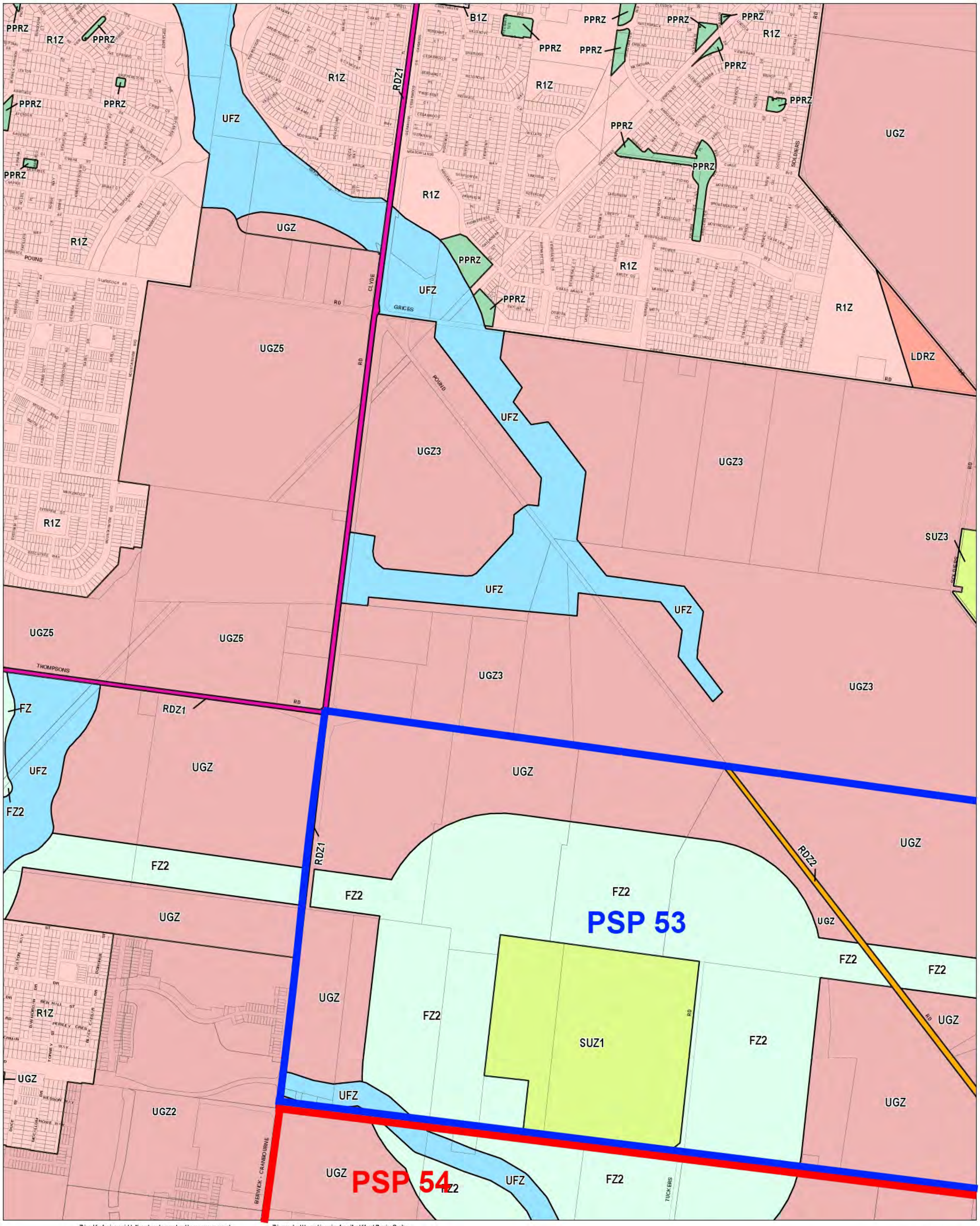
APPENDIX A. PLANNING SCHEMES

CASEY PLANNING SCHEME - LOCAL PROVISION



This map should be read in conjunction with additional Planning Overlay Maps (if applicable) as indicated on the INDEX TO MAPS.

Business
- B1Z — Business 1 Zone

Public Land
- PPRZ — Public Park And Recreation Zone
- RDZ1 — Road Zone - Category 1
- RDZ2 — Road Zone - Category 2

Residential
- LDRZ — Low Density Residential Zone
- R1Z — Residential 1 Zone

Rural
- FZ2 — Farming Zone - Schedule 2

Special Purpose
- SUZ1 — Special Use Zone - Schedule 1
- SUZ3 — Special Use Zone - Schedule 3
- UFZ — Urban Floodway Zone
- UGZ — Urban Growth Zone
- UGZ2 — Urban Growth Zone - Schedule 2
- UGZ3 — Urban Growth Zone - Schedule 3
- UGZ5 — Urban Growth Zone - Schedule 5

200 0 200 400 600 800 1000 m

AUSTRALIAN MAP GRID ZONE 55

N

State Government Victoria

INDEX TO ADJOINING METRIC SERIES MAP

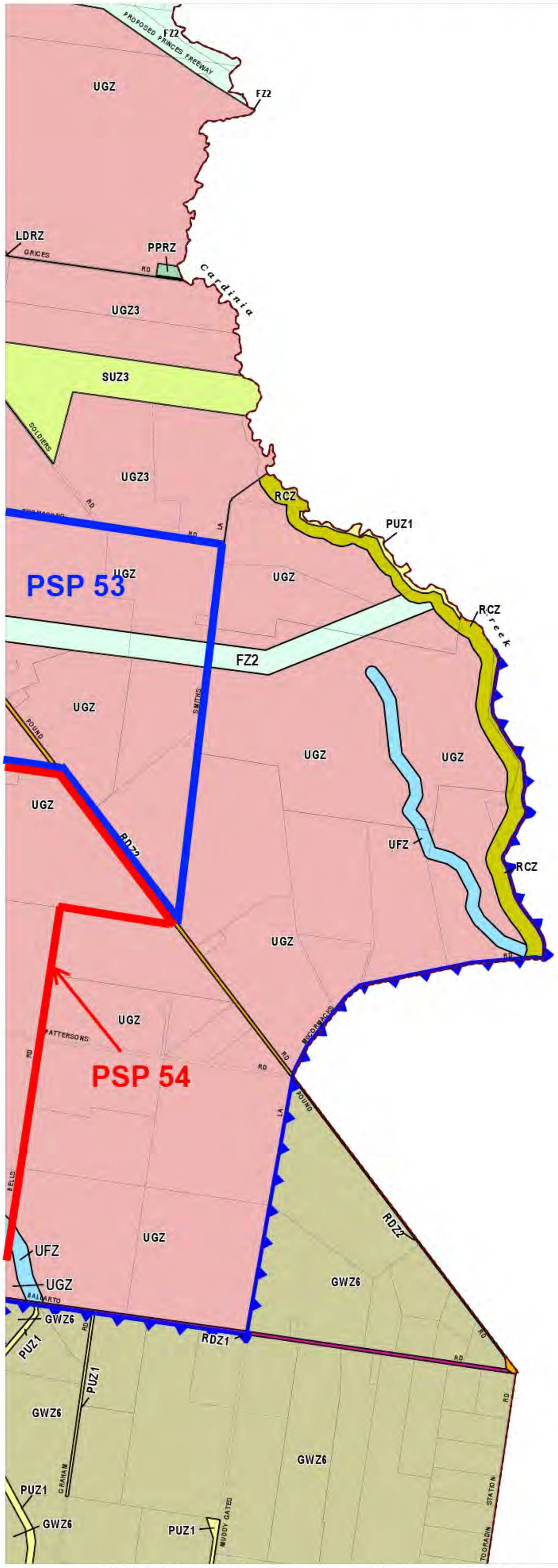
Printed: 7/11/2011

AMENDMENT C153

ZONES

MAP No 12

CASEY PLANNING SCHEME - LOCAL PROVISION



See CARDINIA PLANNING SCHEME

See CARDINIA PLANNING SCHEME

See CARDINIA PLANNING SCHEME

See CARDINIA PLANNING SCHEME

This map should be read in conjunction with additional Planning Overlay Maps (if applicable) as indicated on the INDEX TO MAPS.

Public Land
- PPRZ Public Park And Recreation Zone
- PUZ1 Public Use Zone - Service And Utility
- RDZ1 Road Zone - Category 1
- RDZ2 Road Zone - Category 2

Residential
- LDRZ Low Density Residential Zone

Rural
- FZ2 Farming Zone - Schedule 2
- GWZ6 Green Wedge Zone - Schedule 6
- RCZ Rural Conservation Zone

Special Purpose
- SUZ3 Special Use Zone - Schedule 3
- UFZ Urban Floodway Zone
- UGZ Urban Growth Zone
- UGZ3 Urban Growth Zone - Schedule 3

Land Outside Urban Growth Boundary / Urban Growth Boundary

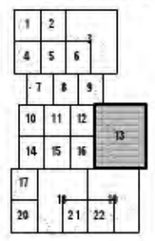
500 0 500 1000 1500 m

AUSTRALIAN MAP GRID ZONE 55

N

State Government Victoria

INDEX TO ADJOINING METRIC SERIES MAP



Printed: 7/11/2011

AMENDMENT C153

ZONES

MAP No 13

CASEY PLANNING SCHEME - LOCAL PROVISION

PSP 53

This map should be read in conjunction with additional Planning Overlay Maps (if applicable) as indicated on the INDEX TO MAPS.

Public Land
- PPRZ Public Park And Recreation Zone
- PUZ2 Public Use Zone - Education
- PUZ6 Public Use Zone - Local Government
- PUZ7 Public Use Zone - Other Public Use
- PUZ1 Public Use Zone - Service And Utility
- PUZ4 Public Use Zone - Transport
- RDZ1 Road Zone - Category 1
- RDZ2 Road Zone - Category 2

Residential
- R1Z Residential 1 Zone

Rural
- FZ2 Farming Zone - Schedule 2
- GWZ6 Green Wedge Zone - Schedule 6

Special Purpose
- UFZ Urban Floodway Zone
- UGZ Urban Growth Zone
- UGZ2 Urban Growth Zone - Schedule 2

Land Outside Urban Growth Boundary / Urban Growth Boundary

200 0 200 400 600 800 1000 m

AUSTRALIAN MAP GRID ZONE 55

N

State Government Victoria

INDEX TO ADJOINING METRIC SERIES MAP

Printed: 19/9/2011

AMENDMENT VC77

ZONES

MAP No 16

APPENDIX B. AERIAL PHOTOGRAPHS

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1960 Aerial Photograph (North West Portion)

Client: Growth Areas Authority

Drawn: A.HAYES Date: 20.01.2012

Checked: M.KRAKIC Date: 27.01.2012

Sheet: 01

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development & environment consultants
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Malvern VIC 3144
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Fax: 03 9524 8899
www.beveridgewilliams.com.au

Scale: NOT TO SCALE

Project Ref.: 1101542

Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1960 Aerial Photograph (North Portion)

Client: Growth Areas Authority

Drawn: A.HAYES
Date: 20.01.2012

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Project Ref.: 1101542

Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name	Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road
Drawing Title	1960 Aerial Photograph (North East Portion)
Client	Growth Areas Authority

Drawn	A.HAYES
Date	20.01.2012
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Scale	NOT TO SCALE
Project Ref.	1101542
Image Source	DSE

North Arrow

N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev | Description | Date | By | App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1962 Aerial Photograph (South West Portion)

Client: Growth Areas Authority

Drawn: A.HAYES — Date: 20.01.2012

Checked: M.KRAKIC — Date: 27.01.2012

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Project Ref.: 1101542

Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1962 Aerial Photograph (South East Portion)

Client: Growth Areas Authority

Drawn: A.HAYES, Date: 20.01.2012

Checked: M.KRAKIC, Date: 27.01.2012

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Project Ref.: 1101542

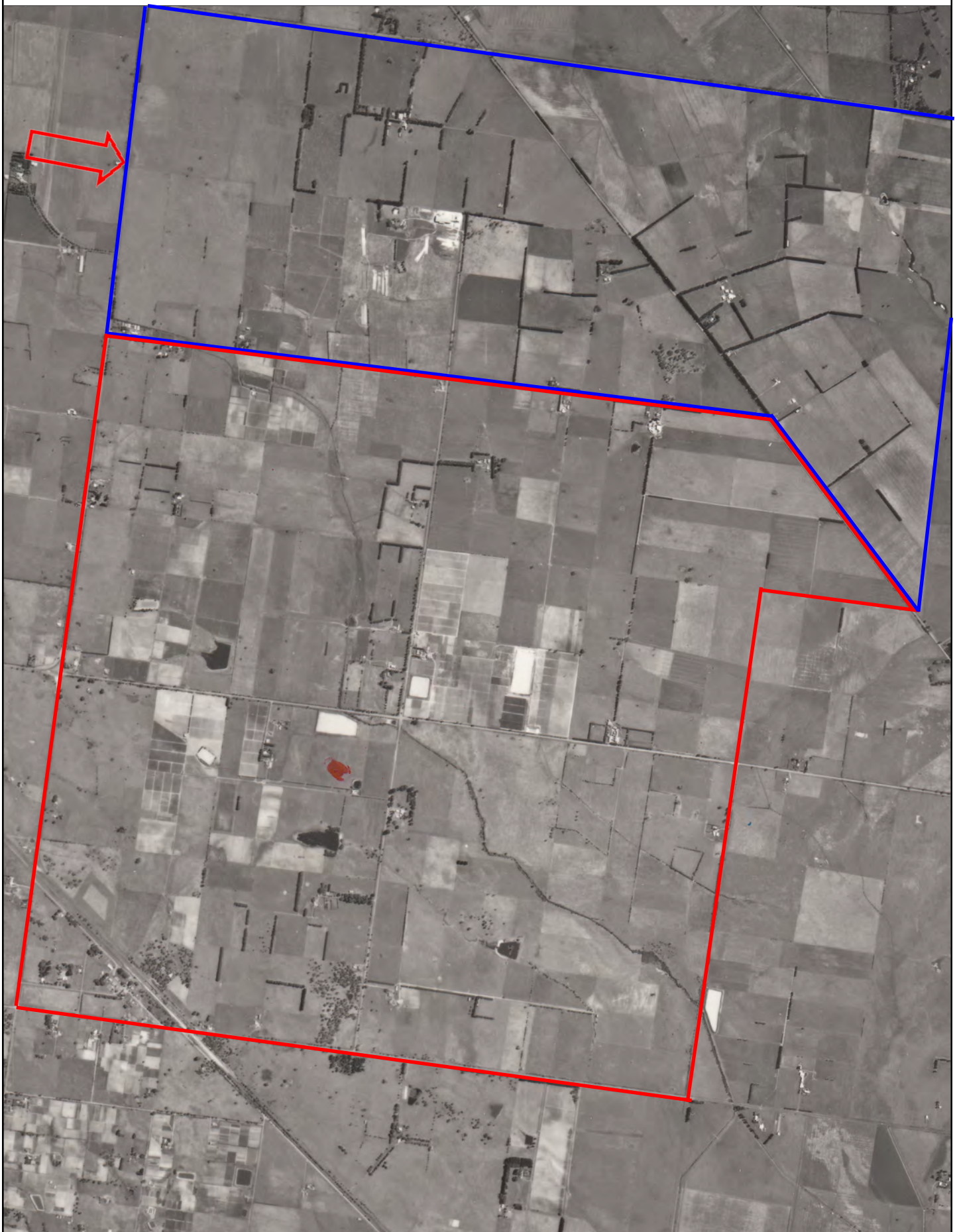
Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)



Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1971 Aerial Photograph

Client: Growth Areas Authority

Drawn: A.HAYES
Date: 20.01.2012

Checked: M.KRAKIC
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Project Ref.: 1101542

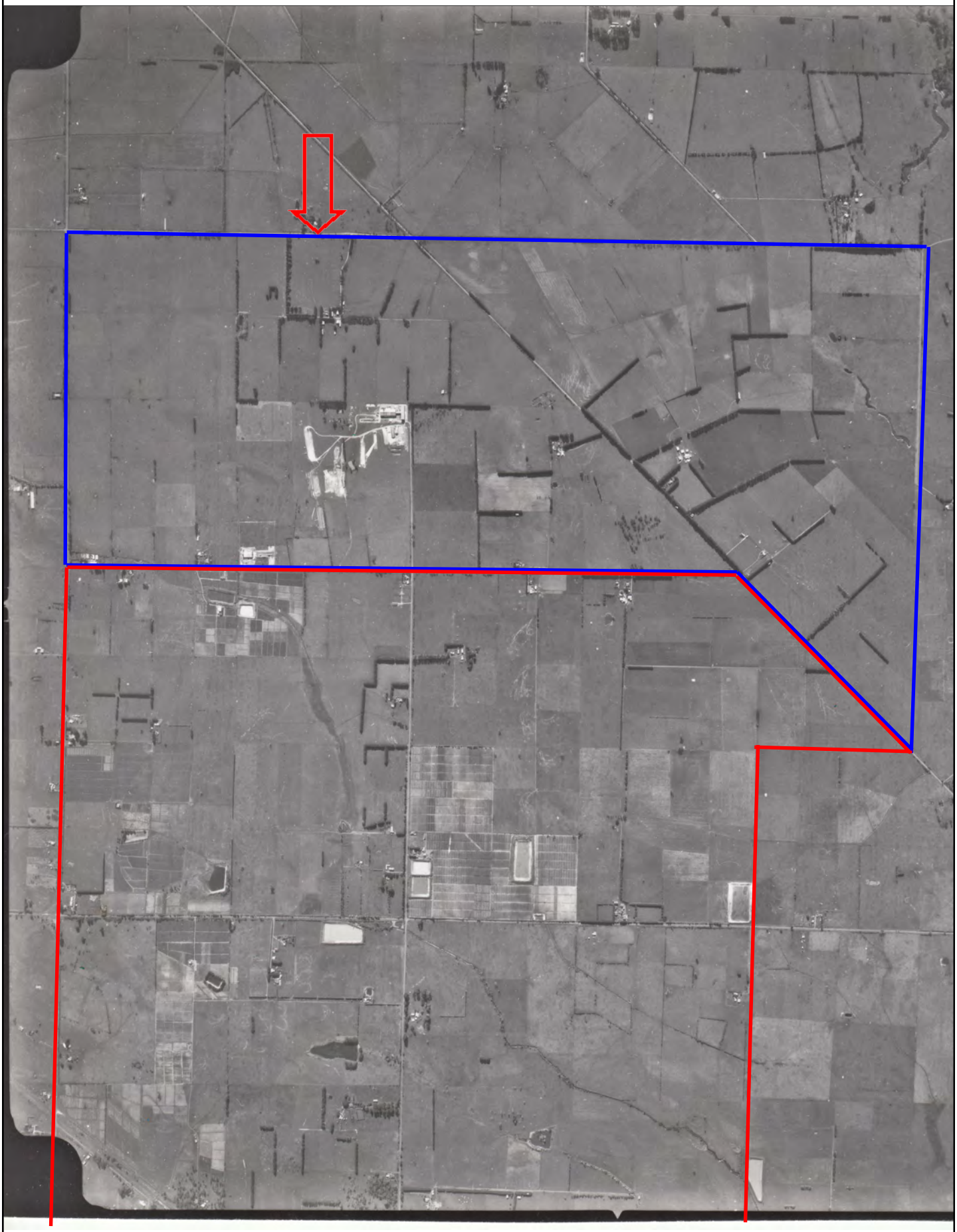
Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)



Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1975 Aerial Photograph

Client: Growth Areas Authority

Drawn: A.HAYES — Date: 20.01.2012

Checked: M.KRAKIC — Date: 27.01.2012

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Project Ref.: 1101542

Image Source: DSE

North Arrow

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1985 Aerial Photograph

Client: Growth Areas Authority

Drawn: A.HAYES Date: 20.01.2012

Checked: M.KRAKIC Date: 27.01.2012

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Project Ref.: 1101542

Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name	Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road
Drawing Title	1991 Aerial Photograph (East Portion)
Client	Growth Areas Authority

Drawn	A.HAYES
Date	20.01.2012
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Project Ref.	1101542
Image Source	DSE

North Arrow

N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1991 Aerial Photograph (North West Portion)

Client: Growth Areas Authority

Drawn: A.HAYES — Date: 20.01.2012

Checked: M.KRAKIC — Date: 27.01.2012

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Project Ref.: 1101542

Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1991 Aerial Photograph (South East Portion)

Client: Growth Areas Authority

Drawn: A.HAYES — Date: 20.01.2012

Checked: M.KRAKIC — Date: 27.01.2012

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Scale: NOT TO SCALE

Project Ref.: 1101542

Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)

Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 1991 Aerial Photograph (West Portion)

Client: Growth Areas Authority

Drawn: A.HAYES — Date: 20.01.2012

Checked: M.KRAKIC — Date: 27.01.2012

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Project Ref.: 1101542

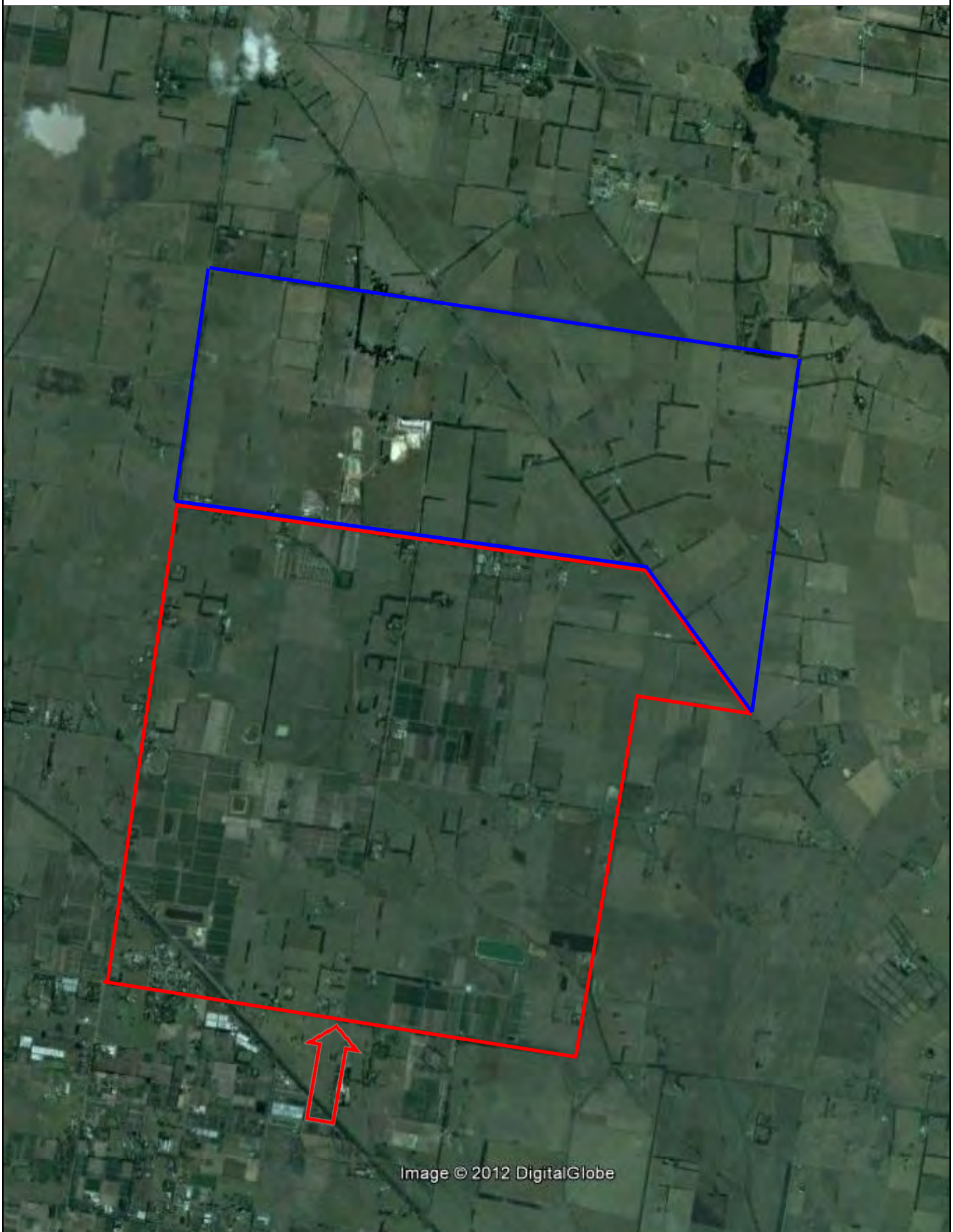
Image Source: DSE

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)



Rev	Description	Date	By	App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 2004 Aerial Photograph

Client: Growth Areas Authority

Drawn: A.HAYES
Date: 24.01.2012

Checked: M.KRAKIC
Date: 27.01.2012

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Project Ref.: 1101542

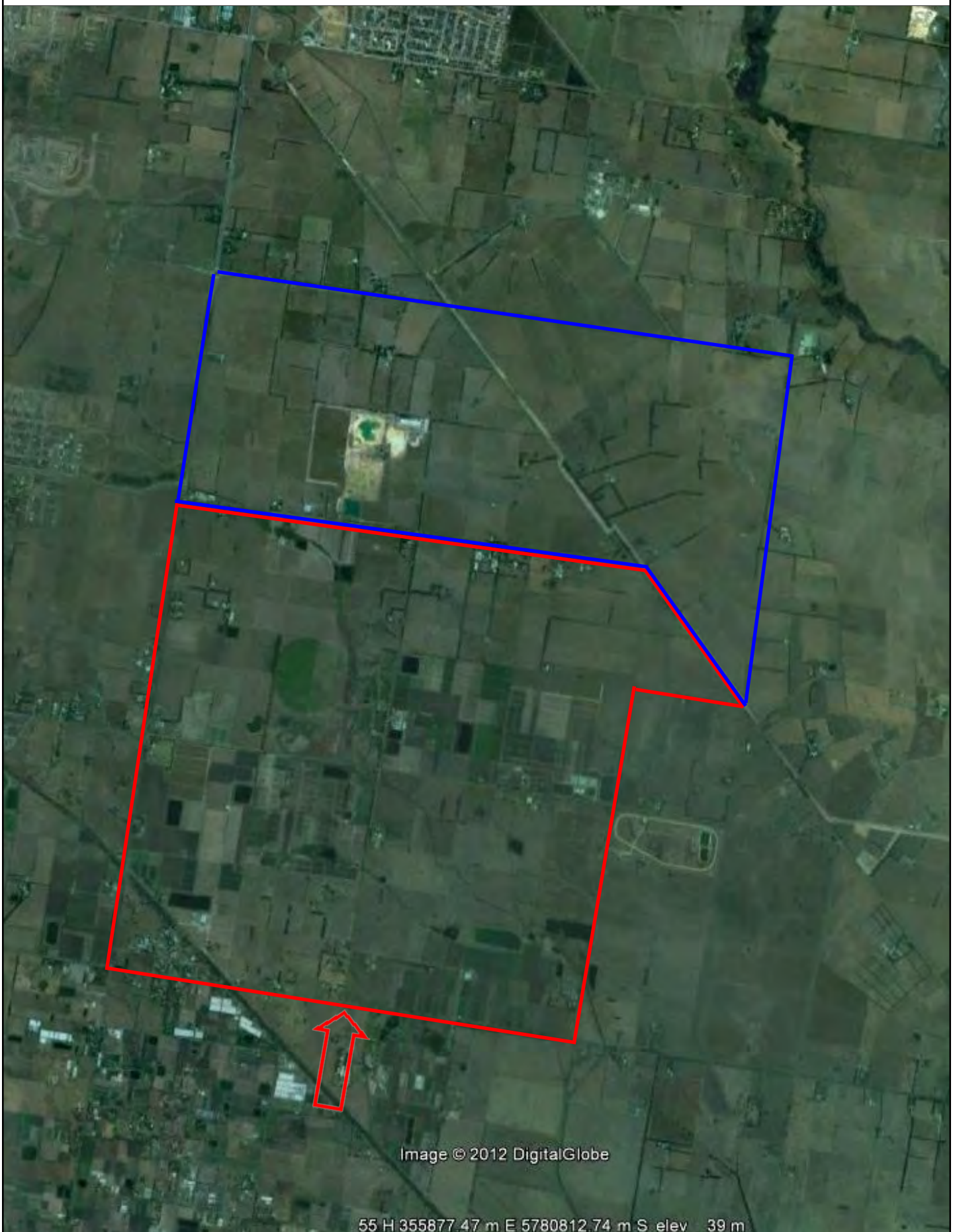
Image Source: Google

North Arrow: N

Denotes Approximate Site Location

Denotes Approximate Site Boundary (PSP 53)

Denotes Approximate Site Boundary (PSP 54)



Rev | Description | Date | By | App

Project Name: Preliminary Environmental Contamination Assessment— Clyde Creek and Thompsons Road

Drawing Title: 2010 Aerial Photograph

Client: Growth Areas Authority

Drawn: A.HAYES
Date: 24.01.2012

Checked: M.KRAKIC
Date: 27.01.2012

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Scale: NOT TO SCALE

Project Ref.: 1101542

Image Source: Google

North Arrow: N

APPENDIX C. GROUNDWATER DATABASE SEARCH RESULTS

GMS DATABASE SEARCH RESULTS
LOCATION

PARISH NO	PARISH NAME	SITE NO	OLD SITE NO	RIG NO./ LIC NO.	MGA ZONE	EAST	NORTH	DATE COMPLETED	TOTAL DEPTH (m)	RLNS	SITE TYPE	USES	DRILL METHOD	LOGS G	LOGS D	AQUIF FROM (m)	AQUIF TO (m)	TSS mg/L
-	-	WRK057841	-	WLE049638	55	353270	5779600	29.03.2011	18.2	-	BOR	OB	-	N	N	-	-	N/A
-	-	WRK057840	-	WLE049638	55	353265	5779620	29.03.2011	19	-	BOR	OB	-	N	N	-	-	N/A
-	-	WRK057842	-	WLE049638	55	353260	5779620	29.03.2011	19	-	BOR	OB	-	N	N	-	-	N/A
-	-	WRK057838	-	WLE049638	55	353260	5779615	29.03.2011	19.5	-	BOR	OB	-	N	N	-	-	N/A
-	-	WRK057836	-	WLE047105	55	353265	5779615	21.07.2010	16	48.7	BOR	OB	AGM	N	Y	-	-	N/A
-	-	WRK057839	-	WLE049638	55	353265	5779600	29.03.2011	12	-	BOR	OB	-	N	N	-	-	N/A
-	-	S9033879/4	-	S9033879	55	355171	5781453	06.03.2008	14.5	31.24	BOR	IV	AGM	N	Y	-	-	N/A
-	-	S9033879/3	-	S9033879	55	355065	5781250	06.03.2008	15	31.08	BOR	IV	AGM	N	Y	-	-	N/A
-	-	S9033879/5	-	S9033879	55	355253	5781715	06.03.2008	15	36.45	BOR	IV	AGM	N	Y	-	-	N/A
-	-	WRK058403	-	WLE050147	55	352823	5779566	20.06.2011	25	-	BOR	OB	-	N	N	-	-	N/A
-	-	WRK058404	-	WLE047420	55	352802	5779725	01.06.2011	25	-	BOR	OB	-	N	N	-	-	N/A
-	-	S9033879/2	-	S9033879	55	354725	5781957	05.03.2008	15	35.1	BOR	IV	AGM	N	Y	-	-	N/A
-	-	WRK057843	-	WLE049638	55	353270	5779625	29.03.2011	19	-	BOR	OB	-	N	N	-	-	N/A
2462	CRANBOURNE	57275	3246208094	NONE	55	353237.2	5778986.09	01.01.1970	24.3	40.56	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57272	3246208091	NONE	55	355890.2	5779260.09	01.01.1970	0	27.03	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57278	3246208097	NONE	55	355699.2	5780266.09	01.01.1970	36.5	37.1	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57279	3246208098	NONE	55	356838.2	5779066.09	01.01.1970	0	12.74	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57271	3246208090	NONE	55	356005.2	5778683.09	01.01.1970	18.2	14.81	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57277	3246208096	NONE	55	355347.2	5780635.09	01.01.1970	36.5	34.54	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57281	3246208100	NONE	55	357656.2	5779182.09	01.01.1970	29.2	11.86	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57280	3246208099	NONE	55	356907.2	5779306.09	01.01.1970	8.5	13.38	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57284	3246208103	NONE	55	356403.2	5781519.09	01.01.1970	47.5	42.13	BOR	DM ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57285	3246208104	NONE	55	357015.2	5782253.09	01.01.1970	19.5	27.57	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57286	3246208105	NONE	55	355686.2	5781095.09	01.01.1970	34.1	40.11	BOR	DM ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57287	3246208106	NONE	55	354941.2	5779079.09	01.01.1970	42.6	30.98	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57298	3246208117	NONE	55	352998.2	5781788.09	01.01.1970	54.86	32.78	BOR	ST DM	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57283	3246208102	NONE	55	357889.2	5782018.09	01.01.1970	0	25.87	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57318	3246210002	910	55	354288.2	5779167.09	14.12.1971	48.77	30.24	BOR	ST DM	NKN	N	Y	21.33	45.11	TSC
2462	CRANBOURNE	57319	3246210003	885	55	355040.2	5779718.09	03.02.1972	61	30.85	BOR	IR	CBT	N	Y	40	42.5	TSS
2462	CRANBOURNE	57316	3246208135	NONE	55	356751.2	5781151.09	01.01.1970	82	37.06	BOR	ST DM	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57331	3246210015	933	55	355904.2	5779774.09	25.06.1973	106.68	33.31	BOR	IR	CBT	N	Y	27.43	45.72	TSS
2462	CRANBOURNE	57335	3246210019	5049	55	356167.2	5783373.09	19.04.1974	11.28	29.22	BOR	ST	CBT	N	Y	0	0	TSS
2462	CRANBOURNE	57341	3246210025	5657	55	353413.2	5781304.09	06.11.1974	20.11	32.3	BOR	DM ST	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57342	3246210026	5784	55	356931.2	5779245.09	09.12.1974	25.9	14.17	BOR	DM ST	CBT	N	Y	24.99	0	TSS

Prepared by: A.HAYES
Checked by: M.KRAKIC

GMS DATABASE SEARCH RESULTS
LOCATION

PARISH NO	PARISH NAME	SITE NO	OLD SITE NO	RIG NO./ LIC NO.	MGA ZONE	EAST	NORTH	DATE COMPLETED	TOTAL DEPTH (m)	RLNS	SITE TYPE	USES	DRILL METHOD	LOGS G	LOGS D	AQUIF FROM (m)	AQUIF TO (m)	TSS mg/L
2462	CRANBOURNE	57346	3246210030	4493	55	356313.2	5780042.09	20.12.1973	48.77	28.51	BOR	IR	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57351	3246210035	6989	55	353158.2	5779725.09	02.02.1976	32	41.7	BOR	ST DM	CBT	N	Y	20.12	32	TSS
2462	CRANBOURNE	57353	3246210037	5895	55	355872.2	5779214.09	09.01.1975	30.78	24.71	BOR	ST DM	CBT	N	Y	30.48	30.78	TSS
2462	CRANBOURNE	57370	3246210054	8978	55	354519.2	5778481.09	04.05.1977	44.19	33.82	BOR	DM ST	CBT	N	Y	27.43	41.14	TSS
2462	CRANBOURNE	57378	3246210062	8900	55	353266.2	5779830.09	07.04.1977	37.2	41.4	BOR	DM ST	ROA	N	Y	20.1	37.2	TSS
2462	CRANBOURNE	57251	3246208070	NONE	55	354976.2	5779858.09	01.01.1970	23.1	30.85	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57267	3246208086	NONE	55	353731.2	5779667.09	01.01.1970	47.2	42.1	BOR	ST	NKN	N	N	-	-	N/A
2462	CRANBOURNE	57405	3246210089	13294	55	357014.2	5781055.09	15.06.1980	45.72	31.95	BOR	IR	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57327	3246210011	2270	55	354951.2	5779790.09	11.01.1973	55.16	29.4	BOR	DY DM ST	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57411	3246210095	15754	55	352884.2	5779825.09	17.12.1981	42.98	39.02	BOR	DM ST	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57412	3246210096	15983	55	352853.2	5779684.09	02.02.1982	13.15	40.52	BOR	DM ST	CBT	N	Y	12	13.15	TSS
2462	CRANBOURNE	57423	3246210108	16970	55	353868.2	5778401.09	13.11.1982	18.5	32.15	BOR	DM IR ST	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57428	3246210113	19268	55	353830.2	5778541.09	15.02.1983	15	33.22	BOR	ST DM IR	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57240	3246208059	NONE	55	358316.2	5780016.09	31.12.1970	3.6	17.24	W/S	DY DM ST	-	N	N	-	-	N/A
2462	CRANBOURNE	57389	3246210073	13779	55	353208.2	5779940.09	26.11.1980	28	39.92	BOR	DM	CBT	N	Y	0	28	TSS
2462	CRANBOURNE	57228	3246208047	NONE	55	355034.2	5778105.09	31.12.1969	21.34	21.86	BOR	DY DM ST	ROT	N	N	-	-	N/A
2462	CRANBOURNE	57234	3246208053	NONE	55	352806.2	5780725.09	31.12.1968	64	33.65	BOR	IR	CBT	N	N	-	-	N/A
2462	CRANBOURNE	57438	3246210123	18108	55	355203.2	5779734.09	14.12.1982	24	32.4	BOR	NKN	ROA	N	Y	-	-	N/A
2462	CRANBOURNE	57177	3246200062	14/80/3	55	355012.2	5779395.09	24.04.1980	56	21.2	BOR	NKN	CBT	N	N	3	3.4	TSS
2462	CRANBOURNE	57440	3246210125	18108	55	355203.2	5779734.09	17.12.1982	24	32.4	BOR	NKN	ROA	N	Y	-	-	N/A
2462	CRANBOURNE	57441	3246210126	18108	55	355203.2	5779734.09	01.03.2001	105	32.4	BOR	NKN DS	ROM	N	Y	-	-	N/A
2462	CRANBOURNE	57442	3246210127	18108	55	355100.2	5780193.09	10.01.1983	39.6	31.17	BOR	IR	ROA	N	Y	-	-	N/A
2462	CRANBOURNE	57444	3246210129	24719	55	355023.2	5779610.09	09.12.1982	42.55	28.22	BOR	IR	ROA	N	Y	-	-	N/A
2462	CRANBOURNE	57449	3246210134	24928	55	357413.2	5779284.09	26.03.1984	22	12.79	BOR	ST DM	CBT	N	Y	0	0	TDS
2462	CRANBOURNE	57453	3246210138	23934	55	353920.2	5779441.09	03.07.1984	41.76	38.78	BOR	ST DM IR	CBT	N	Y	0	0	TDS
2462	CRANBOURNE	57456	3246210141	25324	55	352788.2	5781325.09	02.07.1984	18	33.07	BOR	DM	CBT	N	Y	14	18	TDS
2462	CRANBOURNE	57457	3246210142	25239	55	354901.2	5779872.09	27.04.1984	29.2	30.17	BOR	DM ST	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57462	3246210147	26266	55	358073.2	5780684.09	02.01.1984	30.4	18.7	BOR	ST DM	CBT	N	Y	28.5	30.4	TDS
2462	CRANBOURNE	57468	3246210153	27166	55	357093.2	5782604.09	30.07.1985	46	27.48	BOR	DM ST	CBT	N	Y	39	46	TDS
2462	CRANBOURNE	57476	3246210161	1142	55	353016.2	5781967.09	27.03.1972	60.96	31.84	BOR	IR	CBT	N	Y	53.95	56.69	TSS

Prepared by: A.HAYES
Checked by: M.KRAKIC

GMS DATABASE SEARCH RESULTS
LOCATION

PARISH NO	PARISH NAME	SITE NO	OLD SITE NO	RIG NO./ LIC NO.	MGA ZONE	EAST	NORTH	DATE COMPLETED	TOTAL DEPTH (m)	RLNS	SITE TYPE	USES	DRILL METHOD	LOGS G	LOGS D	AQUIF FROM (m)	AQUIF TO (m)	TSS mg/L
2462	CRANBOURNE	57480	3246210165	29081	55	357863.2	5779234.09	26.05.1986	30	13.58	BOR	DM ST	CBT	N	Y	0	0	TDS
2462	CRANBOURNE	57485	3246210170	29732	55	353013.2	5781984.09	21.11.1986	17.5	31.49	BOR	DM	CBT	N	Y	0	0	TDS
2462	CRANBOURNE	57486	3246210171	29757	55	353013.2	5781384.09	16.04.1987	20.65	33.42	BOR	DM	CBT	N	Y	0	0	TDS
2462	CRANBOURNE	57488	3246210173	29562	55	354513.2	5779684.09	16.10.1986	37.2	24.8	BOR	IR ST DM	DHH	N	Y	0	0	TDS
2462	CRANBOURNE	57498	3246215004	29920	55	353323.2	5780084.09	19.12.1986	23.7	39.46	BOR	DM ST	ROA	N	Y	-	-	N/A
2462	CRANBOURNE	57382	3246210066	10527	55	356707.2	5780930.09	27.04.1978	44.19	33.5	BOR	IR	CBT	N	Y	23.47	42.06	TSS
2462	CRANBOURNE	57410	3246210094	15608	55	353457.2	5779591.09	20.12.1981	42.98	48.44	BOR	ST DM	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	113068	-	39643	55	357943.2	5782404.09	03.04.1992	12.8	27.47	BOR	DM ST	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	126975	-	45196	55	353545.8	5779653.77	10.01.1996	49	49.13	BOR	IV OB SON	DHH	N	Y	-	-	N/A
2462	CRANBOURNE	129572	-	46699	55	353698.8	5778428.67	20.12.1996	24	31.55	BOR	IR	DHH	N	Y	-	-	N/A
2462	CRANBOURNE	140030	-	51991	55	354728.2	5778049.09	31.12.1998	39	26.41	BOR	DM ST	DHH	N	Y	-	-	N/A
2462	CRANBOURNE	57250	3246208069	NONE	55	358062.2	5779363.09	01.01.1970	33.5	13.45	BOR	ST DM	NKN	N	N	-	-	N/A
2462	CRANBOURNE	305316	3246200057	NONE	55	356393.2	5783474.09	11.05.1974	3.96	30.01	BOR	NG	-	N	N	-	-	N/A
2462	CRANBOURNE	142306	-	55333	55	356363.2	5779284.09	28.04.2000	49	17.16	BOR	ST DM	DHH	N	Y	-	-	N/A
2462	CRANBOURNE	143841	-	55606	55	355633.2	5778334.09	24.04.2000	30	15.46	BOR	DM ST	ROA	N	Y	-	-	N/A
2462	CRANBOURNE	144540	-	58154	55	356813.2	5779284.09	10.07.2001	40	13.04	BOR	DS	DHH	N	Y	-	-	N/A
2462	CRANBOURNE	144672	-	56637	55	355513.2	5779084.09	18.12.2000	31	25.36	BOR	DS	DHH	N	Y	-	-	N/A
2462	CRANBOURNE	S9023938/1	-	S9023938	55	357229	5782536	08.12.2005	58	27.63	BOR	DS	ROM	N	Y	-	-	N/A
2462	CRANBOURNE	S9025419/1	-	S9025419	55	356638	5778721	18.10.2006	35	13.23	BOR	DS	DHH	N	Y	-	-	N/A
2462	CRANBOURNE	S9025972/1	-	S9025972	55	353402	5781773	13.07.2006	11	32.32	BOR	DS	AGM	N	N	-	-	N/A
2462	CRANBOURNE	S9027043/1	-	S9027043	55	357908	5781131	07.03.2007	98	25.66	BOR	DS	DHH	N	N	-	-	N/A
2462	CRANBOURNE	S9030639/1	-	S9030639	55	356166	5780382	25.10.2008	43	36.19	BOR	DS	DHH	N	N	-	-	N/A
2462	CRANBOURNE	S9033879/1	-	S9033879	55	354676	5781496	05.03.2008	12	29.82	BOR	IV	AGM	N	Y	-	-	N/A
2462	CRANBOURNE	57242	3246208061	NONE	55	357306.2	5781469.09	01.01.1970	7.6	34.05	BOR	DM ST	NKN	N	N	0	0	TSS
2462	CRANBOURNE	57429	3246210114	23635	55	352827.2	5779885.09	26.07.1983	15.75	38.72	BOR	ST DM	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57430	3246210115	23558	55	356943.2	5779004.09	17.06.1983	19.3	12.14	BOR	ST DM	CBT	N	Y	-	-	N/A
2462	CRANBOURNE	57231	3246208050	NONE	55	353461.2	5779449.09	31.12.1970	43	43.83	BOR	IR	NKN	N	N	-	-	N/A
2462	CRANBOURNE	S9036661/1	-	S9036661	55	353465	5781255	12.01.2009	7	32.96	BOR	IV	AGH	N	Y	-	-	N/A
2462	CRANBOURNE	S9036661/2	-	S9036661	55	352740	5780735	12.01.2009	7	33.95	BOR	IV	AGM	N	N	-	-	N/A
2462	CRANBOURNE	S9036661/3	-	S9036661	55	352725	5780580	-	25	34.8	BOR	-	-	N	N	-	-	N/A
2462	CRANBOURNE	S9036661/4	-	S9036661	55	353000	5780010	-	25	38.07	BOR	-	-	N	N	-	-	N/A
2462	CRANBOURNE	57225	3246208044	NONE	55	354738.2	5778242.09	31.12.1968	38.71	28.61	BOR	DM ST	CBT	N	N	0	0	TSS
2462	CRANBOURNE	57227	3246208046	NONE	55	356613.2	5781384.09	31.12.1970	0	43.17	BOR	DM ST	NKN	N	N	0	0	TSS
2462	CRANBOURNE	57226	3246208045	NONE	55	356025.2	5779536.09	31.12.1970	36.5	28.17	BOR	ST DM	NKN	N	N	0	0	TSS
2462	CRANBOURNE	57436	3246210121	18108	55	355203.2	5779734.09	02.12.1982	50	32.4	BOR	NKN	DHH	N	Y	-	-	N/A
2462	CRANBOURNE	57437	3246210122	18108	55	355203.2	5779734.09	03.12.1982	45.6	32.4	BOR	NKN	ROA	N	Y	-	-	N/A
2462	CRANBOURNE	57439	3246210124	18108	55	355203.2	5779734.09	16.12.1982	36.6	32.4	BOR	NKN	ROA	N	Y	-	-	N/A
3487	SHERWOOD	91697	3348710113	18247	55	353563.2	5778564.09	07.09.1983	43.28	33.2	BOR	ST DM	CBT	N	Y	-	-	N/A
3487	SHERWOOD	91692	3348710108	18246	55	353603.2	5778494.09	08.03.1983	49.07	33.19	BOR	DM ST	CBT	N	Y	-	-	N/A
3487	SHERWOOD	141783	-	51283	55	354313.2	5780884.09	16.11.1998	49	33.58	BOR	DM ST	CBT	N	Y	-	-	N/A

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Checked by: M.KRAKIC

GMS DATABASE SEARCH RESULTS
AQUIFER

PARISH NO	PARISH NAME	SITE NO	DITR NO	WATER SCREEN	FROM (m)	TO (m)	LITHO LOGY	CASING DEPTH (m)	DIA (mm)	TYPE	APER (mm)	SWL (m)	PUMP DEPTH (m)	PUMP RATE (1/sec)	PUMP TIME (H:M)	DRAW DOWN (m)	REC TIME (H:M)	EC	TEST TYPE	TEST DATE
-	-	WRK057841	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057842	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057836	-	SCREEN	10	16	CLAY	-	-	PVC	1	-	-	-	-	-	-	-	-	21.07.2010
-	-	WRK057839	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK058403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK058404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057843	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57275	3246208094	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57272	3246208091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57278	3246208097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57279	3246208098	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57271	3246208090	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57277	3246208096	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57281	3246208100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57280	3246208099	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57284	3246208103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57285	3246208104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57286	3246208105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57287	3246208106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57298	3246208117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57283	3246208102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57318	3246210002	SCREEN	0	48.8	NOT	-	-	NKN	-	-	-	-	-	-	-	-	-	14.12.1971
2462	CRANBOURNE	57318	3246210002	WATER	21.3	45.1	-	20.7	-	-	-	8.5	45.1	0	-	10.7	-	0	-	14.12.1971
2462	CRANBOURNE	57319	3246210003	SCREEN	28	41.8	NOT	-	-	GIR	-	9.1	-	-	-	10.7	-	-	PUM	03.02.1972
2462	CRANBOURNE	57319	3246210003	WATER	28	41.8	BASA	25.3	152	-	-	9.1	0	21	-	10.7	-	0	-	03.02.1972
2462	CRANBOURNE	57316	3246208135	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57331	3246210015	SCREEN	0	106.7	NOT	-	-	NKN	-	-	-	-	-	-	-	-	-	25.06.1973
2462	CRANBOURNE	57331	3246210015	WATER	17.1	30.5	NOT	17.4	-	-	-	24.4	64	0	-	27.1	-	0	-	25.06.1973
2462	CRANBOURNE	57331	3246210015	WATER	90.8	100.6	NOT	17.4	-	-	-	18.3	100.6	0	-	24.4	-	0	-	25.06.1973
2462	CRANBOURNE	57335	3246210019	SCREEN	9.1	11.3	NOT	-	-	PVC	-	3	-	-	0:10	6.1	-	-	BAL	19.04.1974
2462	CRANBOURNE	57335	3246210019	WATER	9.1	11.3	SAND	11.3	114	-	-	3	0	0.5	-	6.1	-	0	-	19.04.1974
2462	CRANBOURNE	57341	3246210025	SCREEN	18.6	20.1	NOT	-	-	PVC	-	-	-	-	0:10	-	-	-	BAL	06.11.1974

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GMS DATABASE SEARCH RESULTS
AQUIFER

PARISH NO	PARISH NAME	SITE NO	DITR NO	WATER SCREEN	FROM (m)	TO (m)	LITHO LOGY	CASING DEPTH (m)	DIA (mm)	TYPE	APER (mm)	SWL (m)	PUMP DEPTH (m)	PUMP RATE (1/sec)	PUMP TIME (H:M)	DRAW DOWN (m)	REC TIME (H:M)	EC	TEST TYPE	TEST DATE
2462	CRANBOURNE	57341	3246210025	WATER	18.6	19.5	-	20.1	114	-	-	3	20.1	0	-	4.6	-	0	-	06.11.1974
2462	CRANBOURNE	57342	3246210026	SCREEN	21.3	25.6	NOT	-	-	PVC	-	3	-	-	0:10	6.1	-	-	BAL	09.12.1974
2462	CRANBOURNE	57342	3246210026	WATER	21.3	25.6	CLAY	25.9	114	-	-	3	0	1.1	-	6.1	-	0	-	09.12.1974
2462	CRANBOURNE	57346	3246210030	SCREEN	33.5	44.8	NOT	-	-	NKN	-	15.5	-	-	0:30	19.8	-	-	BAL	20.12.1973
2462	CRANBOURNE	57346	3246210030	WATER	33.5	44.8	BASA	25.8	152	-	-	15.5	0	0.9	-	19.8	-	0	-	20.12.1973
2462	CRANBOURNE	57351	3246210035	SCREEN	19.5	32	NOT	-	-	STL	-	7.6	-	-	-	3	-	-	NKN	02.02.1976
2462	CRANBOURNE	57351	3246210035	WATER	19.5	32	BASA	14.7	127	-	-	7.6	0	1	-	3	-	0	-	02.02.1976
2462	CRANBOURNE	57353	3246210037	WATER	30	30.8	-	25.2	125	-	-	13.1	30.8	0.8	-	6.7	-	0	-	09.01.1975
2462	CRANBOURNE	57370	3246210054	SCREEN	27.4	41.1	NOT	-	-	NKN	-	14	-	-	1:30	15.2	-	-	BAL	04.05.1977
2462	CRANBOURNE	57370	3246210054	WATER	27.4	41.1	CLAY	27.4	127	-	-	14	0	0.4	-	15.2	-	0	-	04.05.1977
2462	CRANBOURNE	57378	3246210062	SCREEN	20.1	37.2	NOT	-	-	PVC	-	9.7	-	-	2:00	21	-	-	AIR	07.04.1977
2462	CRANBOURNE	57378	3246210062	WATER	20.1	37.2	BASA	20.4	165	-	-	9.7	0	2	-	21	-	0	-	07.04.1977
2462	CRANBOURNE	57251	3246208070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57267	3246208086	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57405	3246210089	SCREEN	18.3	29.9	MUST	-	89	PVC	0.8	7.6	-	-	4:00	10.7	-	-	BAL	15.06.1980
2462	CRANBOURNE	57405	3246210089	WATER	44.8	45.7	MUST	29.9	102	-	-	7.6	45.7	0.6	-	10.7	-	0	-	15.06.1980
2462	CRANBOURNE	57327	3246210011	SCREEN	30.5	51.5	NOT	-	-	NKN	-	15.2	-	-	-	18.3	-	-	BAL	11.01.1973
2462	CRANBOURNE	57327	3246210011	WATER	30.5	51.5	BASA	24.4	127	-	-	15.2	0	0.6	-	18.3	-	0	-	11.01.1973
2462	CRANBOURNE	57411	3246210095	SCREEN	21	43	BASA	-	-	GIR	-	10.7	-	-	1:00	12.2	-	-	BAL	17.12.1981
2462	CRANBOURNE	57411	3246210095	WATER	22.9	41.8	BASA	21	127	-	-	10.7	43	0.4	-	12.2	-	0	-	17.12.1981
2462	CRANBOURNE	57412	3246210096	SCREEN	11	13.2	BASA	-	101	PVC	0.9	7.3	-	-	0:15	2	-	-	BAL	02.02.1982
2462	CRANBOURNE	57412	3246210096	WATER	12	13.2	BASA	11	114	-	-	7.3	13.2	0.9	-	2	-	0	-	02.02.1982
2462	CRANBOURNE	57423	3246210108	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57428	3246210113	SCREEN	13	15	SAST	-	101	PVC	2	6	-	-	0:15	4.5	-	-	BAL	15.02.1983
2462	CRANBOURNE	57428	3246210113	WATER	13	15	SAST	13	114	-	-	6	15	0.9	-	4.5	-	0	-	15.02.1983
2462	CRANBOURNE	57240	3246208059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57389	3246210073	SCREEN	20	28	BASA	-	101	PVC	0.9	9	-	-	0:30	3	-	-	BAL	26.11.1980
2462	CRANBOURNE	57389	3246210073	WATER	20	28	BASA	20	114	-	-	9	28	1.3	-	3	-	0	-	26.11.1980
2462	CRANBOURNE	57228	3246208047	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57234	3246208053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57438	3246210123	WATER	4	9	CLAY	11	203	-	-	4	0	0	-	0	-	0	-	14.12.1982
2462	CRANBOURNE	57438	3246210123	SCREEN	11	24	NOT	-	-	GIR	-	4	-	-	-	-	-	-	NKN	14.12.1982
2462	CRANBOURNE	57177	3246200062	SCREEN	3	3.4	NOT	-	-	NKN	-	2	-	-	-	-	-	-	NKN	24.04.1980
2462	CRANBOURNE	57177	3246200062	WATER	3	3.4	CLAY	3	-	-	-	2	0	0	-	0	-	0	-	24.04.1980
2462	CRANBOURNE	57440	3246210125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57441	3246210126	WATER	87	105	-	90	145	-	-	-	105	-	-	-	-	-	-	01.03.2001
2462	CRANBOURNE	57442	3246210127	WATER	19	38	BASA	26.9	152	-	-	6	0	6.4	-	28	-	0	-	10.01.1983
2462	CRANBOURNE	57442	3246210127	SCREEN	26.9	39.6	BASA	-	-	PVC	-	6	-	-	1:00	28	-	-	AIR	10.01.1983
2462	CRANBOURNE	57442	3246210127	SCREEN	19	26.3	BASA	-	-	PVC	-	-	-	-	-	-	-	-	-	10.01.1983
2462	CRANBOURNE	57444	3246210129	SCREEN	25.1	42.5	BASA	-	-	GIR	-	19	-	-	-	-	-	-	AIR	09.12.1982
2462	CRANBOURNE	57444	3246210129	WATER	29	42	BASA	25.1	152	-	-	19	42.5	5.1	-	0	-	0	-	09.12.1982
2462	CRANBOURNE	57449	3246210134	SCREEN	18	22	BASA	-	-	GIR	2	3.4	-	-	0:15	4	-	-	BAL	26.03.1984
2462	CRANBOURNE	57449	3246210134	WATER	18.5	22	BASA	18	127	-	-	3.4	22	1.3	-	4	-	0	-	26.03.1984
2462	CRANBOURNE	57453	3246210138	SCREEN	20.5	41.8	BASA	-	-	GIR	-	10.7	-	-	5:00	1.5	-	-	BAL	03.07.1984
2462	CRANBOURNE	57453	3246210138	WATER	27.4	41.8	BASA	20.5	152	-	-	10.7	41.8	0.9	-	1.5	-	0	-	03.07.1984
2462	CRANBOURNE	57456	3246210141	SCREEN	14	18	SAND	-	101	PVC	0.9	0.5	-	-	0:15	6	-	-	BAL	02.07.1984
2462	CRANBOURNE	57456	3246210141	WATER	14	18	SAND	14	114	-	-	0.5	18	1	-	6	-	0	-	02.07.1984
2462	CRANBOURNE	57457	3246210142	SCREEN	26	29.2	BASA	-	101	PVC	0.9	8.5	-	-	0:15	7	-	-	BAL	27.04.1984
2462	CRANBOURNE	57457	3246210142	WATER	27	29.2	BASA	26	114	-	-	8.5	29.2	0.8	-	7	-	0	-	27.04.1984
2462	CRANBOURNE	57462	3246210147	SCREEN	28.5	30.4	BASA	-	-	GIR	-	9	-	-	0:15	6	-	-	BAL	02.01.1984

GMS DATABASE SEARCH RESULTS
AQUIFER

PARISH NO	PARISH NAME	SITE NO	DITR NO	WATER SCREEN	FROM (m)	TO (m)	LITHO LOGY	CASING DEPTH (m)	DIA (mm)	TYPE	APER (mm)	SWL (m)	PUMP DEPTH (m)	PUMP RATE (1/sec)	PUMP TIME (H:M)	DRAW DOWN (m)	REC TIME (H:M)	EC	TEST TYPE	TEST DATE
2462	CRANBOURNE	57462	3246210147	WATER	28.5	30.4	BASA	28.5	127	-	-	9	30.4	1	-	6	-	0	-	02.01.1984
2462	CRANBOURNE	57468	3246210153	SCREEN	36	46	MUST	-	-	GIR	-	1.5	-	-	0:30	20	-	-	BAL	30.07.1985
2462	CRANBOURNE	57468	3246210153	WATER	39	46	MUST	36	127	-	-	1.5	46	0.4	-	20	-	0	-	30.07.1985
2462	CRANBOURNE	57476	3246210161	SCREEN	0	61	NOT	-	-	NKN	-	-	-	-	-	-	-	-	-	27.03.1972
2462	CRANBOURNE	57476	3246210161	WATER	5.2	7	GRAV	48.8	152	-	-	1.8	7.6	0.1	-	1.8	-	0	-	27.03.1972
2462	CRANBOURNE	57476	3246210161	WATER	54	56.7	BASA	48.8	152	-	-	2.7	61	12.6	-	21.3	-	0	-	27.03.1972
2462	CRANBOURNE	57480	3246210165	SCREEN	27	30	SAND	-	101	PVC	0.4	5.5	-	-	0:15	10	-	-	BAL	26.05.1986
2462	CRANBOURNE	57480	3246210165	WATER	27.5	30	SAND	27	114	-	-	5.5	30	0.5	-	10	-	0	-	26.05.1986
2462	CRANBOURNE	57485	3246210170	SCREEN	16	17.5	SAND	-	101	PVC	0.9	2	-	-	0:15	7	-	-	BAL	21.11.1986
2462	CRANBOURNE	57485	3246210170	WATER	16.8	17.5	SAND	16	114	-	-	2	17.5	0.5	-	7	-	0	-	21.11.1986
2462	CRANBOURNE	57486	3246210171	SCREEN	19	20.6	SAND	-	101	PVC	0.9	0.2	-	-	0:30	9	-	-	BAL	16.04.1987
2462	CRANBOURNE	57486	3246210171	WATER	19.6	20.6	SAND	19	114	-	-	0.2	20.6	0.8	-	9	-	0	-	16.04.1987
2462	CRANBOURNE	57488	3246210173	SCREEN	24.7	37.2	BASA	-	-	GIR	-	10	-	-	0:30	-	-	-	AIR	16.10.1986
2462	CRANBOURNE	57488	3246210173	WATER	31	37.2	BASA	24.7	152	-	-	10	37.2	18.9	-	0	-	0	-	16.10.1986
2462	CRANBOURNE	57498	3246215004	WATER	17.6	23.7	BASA	18.8	114	-	-	7.6	21	2.1	-	10	-	0	-	19.12.1986
2462	CRANBOURNE	57498	3246215004	OPENHOLE	18.8	23.7	BASA	-	-	-	-	7.6	-	-	2:00	10	-	-	AIR	19.12.1986
2462	CRANBOURNE	57382	3246210066	WATER	23.5	42.1	CLAY	24.5	152	-	-	6.1	24.4	12.6	-	6.1	-	0	-	27.04.1978
2462	CRANBOURNE	57382	3246210066	SCREEN	24.5	44.2	BASA	-	-	GIR	-	6.1	-	-	4:30	6.1	-	-	BAL	27.04.1978
2462	CRANBOURNE	57410	3246210094	SCREEN	22.1	43	BASA	-	-	GIR	-	18.3	-	-	1:00	12.2	-	-	BAL	20.12.1981
2462	CRANBOURNE	57410	3246210094	WATER	24.4	43	BASA	22.1	152	-	-	18.3	43	1	-	12.2	-	0	-	20.12.1981
2462	CRANBOURNE	113068	-	WATER	10.5	12.5	SAND	10.5	114	-	-	0	0	0	-	0	-	0	-	03.04.1992
2462	CRANBOURNE	113068	-	SCREEN	12.5	12.8	SAND	-	-	PVC	-	1.8	-	-	1:00	4.5	-	-	BAL	03.04.1992
2462	CRANBOURNE	126975	-	SCREEN	41	49	BASA	-	-	ABS	-	17.8	-	-	2:00	31.2	-	6167	AIR	10.01.1996
2462	CRANBOURNE	129572	-	SCREEN	20	24	-	-	-	GIR	-	4	-	-	1:00	-	-	-	AIR	20.12.1996
2462	CRANBOURNE	140030	-	SCREEN	19.5	39	-	-	-	NKN	-	9	-	-	0:30	-	-	-	AIR	31.12.1998
2462	CRANBOURNE	57250	3246208069	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	305316	3246200057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	142306	-	SCREEN	25.5	37	BASA	-	101	PVC	2	9.6	-	-	0:30	-	-	4100	AIR	28.04.2000
2462	CRANBOURNE	142306	-	SCREEN	37	49	-	-	-	PSL	-	-	-	-	-	-	-	-	-	28.04.2000
2462	CRANBOURNE	143841	-	SCREEN	23	30	BASA	-	-	PVC	3	-	-	-	-	-	-	-	NKN	24.04.2000
2462	CRANBOURNE	143841	-	WATER	27	28	-	23	150	-	-	0	0	1.1	-	0	-	0	-	24.04.2000
2462	CRANBOURNE	144540	-	SCREEN	38	40	-	-	-	PSC	-	-	-	-	0:30	40	-	-	AIR	10.07.2001
2462	CRANBOURNE	144540	-	SCREEN	23	38	-	-	101	PVC	1	-	-	-	-	-	-	-	-	10.07.2001
2462	CRANBOURNE	144672	-	SCREEN	14.5	31	-	-	-	PVC	-	5	-	-	0:30	31	-	-	AIR	18.12.2000
2462	CRANBOURNE	S9023938/1	-	OPENHOLE	38	58	-	-	-	-	-	-	-	-	-	-	-	-	-	08.12.2005
2462	CRANBOURNE	S9023938/1	-	WATER	42	44	-	38	142	-	-	4	-	-	-	-	-	-	-	08.12.2005
2462	CRANBOURNE	S9023938/1	-	WATER	56.5	57	-	38	142	-	-	4	-	-	-	-	-	-	-	08.12.2005
2462	CRANBOURNE	S9025419/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9025972/1	-	SCREEN	7	11	-	-	-	PVC	1	-	-	-	-	-	-	-	-	13.07.2006
2462	CRANBOURNE	S9027043/1	-	WATER	18	95	CLAY	34	200	-	-	8	98	-	-	-	-	-	-	07.03.2007
2462	CRANBOURNE	S9030639/1	-	OPENHOLE	32	43	BASA	-	-	-	-	10	-	-	0:15	-	-	-	AIR	25.10.2008

Prepared by: A.HAYES
Checked by: M.KRAKIC

GMS DATABASE SEARCH RESULTS
AQUIFER

PARISH NO	PARISH NAME	SITE NO	DITR NO	WATER SCREEN	FROM (m)	TO (m)	LITHO LOGY	CASING DEPTH (m)	DIA (mm)	TYPE	APER (mm)	SWL (m)	PUMP DEPTH (m)	PUMP RATE (1/sec)	PUMP TIME (H:M)	DRAW DOWN (m)	REC TIME (H:M)	EC	TEST TYPE	TEST DATE
2462	CRANBOURNE	S9033879/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57242	3246208061	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57429	3246210114	SCREEN	13.8	15.8	BASA	-	101	PVC	0.9	8	-	-	-	5	-	-	BAL	26.07.1983
2462	CRANBOURNE	57429	3246210114	WATER	13.8	15.8	BASA	13.8	114	-	-	8	15.8	0.8	-	5	-	0	-	26.07.1983
2462	CRANBOURNE	57430	3246210115	SCREEN	15.8	19.3	BASA	-	-	GIR	-	4	-	-	0:15	2	-	-	BAL	17.06.1983
2462	CRANBOURNE	57430	3246210115	WATER	16	19.3	BASA	15.8	127	-	-	4	19.3	0.9	-	2	-	0	-	17.06.1983
2462	CRANBOURNE	57231	3246208050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/1	-	SCREEN	2	7	-	-	-	PVC	1	-	-	-	-	-	-	-	-	12.01.2009
2462	CRANBOURNE	S9036661/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57225	3246208044	SCREEN	38.1	38.7	NOT	-	-	GIR	-	10.1	-	-	-	-	-	-	PUM	31.12.1968
2462	CRANBOURNE	57225	3246208044	WATER	38.1	38.7	BASA	16.8	152	-	-	10.1	0	7.8	-	0	-	0	-	31.12.1968
2462	CRANBOURNE	57227	3246208046	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57226	3246208045	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57436	3246210121	SCREEN	31.5	50	NOT	-	-	GIR	-	5	-	-	-	-	-	-	AIR	02.12.1982
2462	CRANBOURNE	57436	3246210121	WATER	31.5	50	BASA	31.5	152	-	-	5	0	0.5	-	0	-	0	-	02.12.1982
2462	CRANBOURNE	57437	3246210122	SCREEN	27.9	45.6	-	-	-	GIR	-	-	-	-	-	-	-	-	-	03.12.1982
2462	CRANBOURNE	57439	3246210124	SCREEN	26.5	36.6	BASA	-	-	GIR	-	-	-	-	-	-	-	-	AIR	16.12.1982
2462	CRANBOURNE	57439	3246210124	WATER	26.5	34.6	BASA	26.5	152	-	-	0	0	0.8	-	0	-	0	-	16.12.1982
3487	SHERWOOD	91697	3348710113	SCREEN	12.6	43.3	NOT	-	-	GIR	-	7	-	-	0:30	9.1	-	-	BAL	07.09.1983
3487	SHERWOOD	91697	3348710113	WATER	27.4	39.6	BASA	12.6	152	-	-	7	43.3	0.6	-	9.1	-	0	-	07.09.1983
3487	SHERWOOD	91692	3348710108	SCREEN	18.3	49.1	NOT	-	-	-	-	15.2	-	-	-	15.2	-	-	BAL	08.03.1983
3487	SHERWOOD	91692	3348710108	WATER	23.8	43.6	BASA	18.3	152	GIR	-	15.2	43.6	0.6	-	15.2	-	0	-	08.03.1983
3487	SHERWOOD	141783	-	SCREEN	40	49	-	-	101	PVC	0.4	4.5	-	-	0:30	7	-	-	BAL	16.11.1998

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GMS DATABASE SEARCH RESULTS
COMPOSITE

PARISH NO	PARISH NAME	SITE NO	DITR NO	DATE COMPLETED	ACTIVITY TYPE	AQUIF FROM (m)	AQUIF TO (m)	LITH	SWL (m)	PUMP RATE (1/sec)	TIME (h:m)	DRAW DOWN (m)	LATEST DATE SAMPLED	ANALY MTH	TSS	CL	FE TOTAL	PH	EC	HARD
-	-	WRK057841	-	29.03.2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057840	-	29.03.2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057842	-	29.03.2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057838	-	29.03.2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057836	-	21.07.2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057839	-	29.03.2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/4	-	06.03.2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/3	-	06.03.2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/5	-	06.03.2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK058403	-	20.06.2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK058404	-	01.06.2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/2	-	05.03.2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057843	-	29.03.2011	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57275	3246208094	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57272	3246208091	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57278	3246208097	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57279	3246208098	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57271	3246208090	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57277	3246208096	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57281	3246208100	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57280	3246208099	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57284	3246208103	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57285	3246208104	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57286	3246208105	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57287	3246208106	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57298	3246208117	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57283	3246208102	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57318	3246210002	14.12.1971	TEST	21.3	45.1	-	8.5	0	-	10.7	13.12.1971	-	-	859	-	7.6	3117	-
2462	CRANBOURNE	57319	3246210003	03.02.1972	TEST	28	41.8	BASA	9.1	21	-	10.7	27.03.1996	-	4120	2300	-	7.4	7300	-
2462	CRANBOURNE	57319	3246210003	03.02.1972	DEV	-	-	-	9.1	-	-	10.7	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57316	3246208135	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57331	3246210015	25.06.1973	TEST	17.1	30.5	NOT	24.4	0	-	27.1	16.11.1973	-	4698	2864	-	6.3	8500	-
2462	CRANBOURNE	57331	3246210015	25.06.1973	TEST	90.8	100.6	NOT	18.3	0	-	24.4	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57335	3246210019	19.04.1974	TEST	9.1	11.3	SAND	3	0.5	-	6.1	28.06.1974	-	6868	4146	-	7.4	12090	-
2462	CRANBOURNE	57335	3246210019	19.04.1974	DEV	-	-	-	3	-	0:10	6.1	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57341	3246210025	06.11.1974	TEST	18.6	19.5	-	3	0	-	4.6	-	-	-	-	-	-	-	-

Prepared by: A.HAYES
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GMS DATABASE SEARCH RESULTS
COMPOSITE

PARISH NO	PARISH NAME	SITE NO	DITR NO	DATE COMPLETED	ACTIVITY TYPE	AQUIF FROM (m)	AQUIF TO (m)	LITH	SWL (m)	PUMP RATE (1/sec)	TIME (h:m)	DRAW DOWN (m)	LATEST DATE SAMPLED	ANALY MTH	TSS	CL	FE TOTAL	PH	EC	HARD
2462	CRANBOURNE	57341	3246210025	06.11.1974	DEV	-	-	-	-	-	0:10	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57342	3246210026	09.12.1974	TEST	21.3	25.6	CLAY	3	1.1	-	6.1	15.01.1975	-	3506	1885	-	7.8	6325	-
2462	CRANBOURNE	57342	3246210026	09.12.1974	DEV	-	-	-	3	-	0:10	6.1	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57346	3246210030	20.12.1973	TEST	33.5	44.8	BASA	15.5	0.9	-	19.8	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57346	3246210030	20.12.1973	DEV	-	-	-	15.5	-	0:30	19.8	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57351	3246210035	02.02.1976	TEST	19.5	32	BASA	7.6	1	-	3	16.03.1976	-	2282	1259	142	7.9	3910	-
2462	CRANBOURNE	57351	3246210035	02.02.1976	DEV	-	-	-	7.6	-	-	3	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57353	3246210037	09.01.1975	TEST	30	30.8	-	13.1	0.8	-	6.7	15.01.1975	-	5358	3175	-	6.8	9605	-
2462	CRANBOURNE	57370	3246210054	04.05.1977	TEST	27.4	41.1	CLAY	14	0.4	-	15.2	04.05.1977	-	1474	603	12	8.5	2370	-
2462	CRANBOURNE	57370	3246210054	04.05.1977	DEV	-	-	-	14	-	1:30	15.2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57378	3246210062	07.04.1977	TEST	20.1	37.2	BASA	9.7	2	-	21	06.04.1977	-	1333	620	2	8.3	2250	-
2462	CRANBOURNE	57378	3246210062	07.04.1977	DEV	-	-	-	9.7	-	2:00	21	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57251	3246208070	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57267	3246208086	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57405	3246210089	15.06.1980	TEST	44.8	45.7	MUST	7.6	0.6	-	10.7	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57405	3246210089	15.06.1980	DEV	-	-	-	7.6	-	4:00	10.7	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57327	3246210011	11.01.1973	TEST	30.5	51.5	BASA	15.2	0.6	-	18.3	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57327	3246210011	11.01.1973	DEV	-	-	-	15.2	-	-	18.3	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57411	3246210095	17.12.1981	TEST	22.9	41.8	BASA	10.7	0.4	-	12.2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57411	3246210095	17.12.1981	DEV	-	-	-	10.7	-	1:00	12.2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57412	3246210096	02.02.1982	TEST	12	13.2	BASA	7.3	0.9	-	2	02.02.1982	-	1179	537	2	7.6	1950	-
2462	CRANBOURNE	57412	3246210096	02.02.1982	DEV	-	-	-	7.3	-	0:15	2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57423	3246210108	13.11.1982	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57428	3246210113	15.02.1983	TEST	13	15	SAST	6	0.9	-	4.5	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57428	3246210113	15.02.1983	DEV	-	-	-	6	-	0:15	4.5	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57240	3246208059	31.12.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57389	3246210073	26.11.1980	TEST	20	28	BASA	9	1.3	-	3	26.11.1980	-	2219	1232	30	8.3	4000	-
2462	CRANBOURNE	57389	3246210073	26.11.1980	DEV	-	-	-	9	-	0:30	3	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57228	3246208047	31.12.1969	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57234	3246208053	31.12.1968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57438	3246210123	14.12.1982	TEST	4	9	CLAY	4	0	-	0	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57438	3246210123	14.12.1982	DEV	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57177	3246200062	24.04.1980	TEST	3	3.4	CLAY	2	0	-	0	23.04.1980	-	2946	1488	-	8.2	5050	-
2462	CRANBOURNE	57177	3246200062	24.04.1980	DEV	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57440	3246210125	17.12.1982	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Prepared by: A.HAYES
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GMS DATABASE SEARCH RESULTS
COMPOSITE

PARISH NO	PARISH NAME	SITE NO	DITR NO	DATE COMPLETED	ACTIVITY TYPE	AQUIF FROM (m)	AQUIF TO (m)	LITH	SWL (m)	PUMP RATE (1/sec)	TIME (h:m)	DRAW DOWN (m)	LATEST DATE SAMPLED	ANALY MTH	TSS	CL	FE TOTAL	PH	EC	HARD
2462	CRANBOURNE	57441	3246210126	01.03.2001	TEST	87	105	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57442	3246210127	10.01.1983	TEST	19	38	BASA	6	6.4	-	28	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57442	3246210127	10.01.1983	DEV	-	-	-	6	-	1:00	28	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57444	3246210129	09.12.1982	TEST	29	42	BASA	19	5.1	-	0	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57444	3246210129	09.12.1982	DEV	-	-	-	19	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57449	3246210134	26.03.1984	TEST	18.5	22	BASA	3.4	1.3	-	4	26.03.1984	-	-	2400	2.2	8.3	7400	1600
2462	CRANBOURNE	57449	3246210134	26.03.1984	DEV	-	-	-	3.4	-	0:15	4	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57453	3246210138	03.07.1984	TEST	27.4	41.8	BASA	10.7	0.9	-	1.5	03.07.1984	-	-	2100	16	8	6600	1600
2462	CRANBOURNE	57453	3246210138	03.07.1984	DEV	-	-	-	10.7	-	5:00	1.5	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57456	3246210141	02.07.1984	TEST	14	18	SAND	0.5	1	-	6	02.07.1984	-	-	220	4.3	6.9	850	70
2462	CRANBOURNE	57456	3246210141	02.07.1984	DEV	-	-	-	0.5	-	0:15	6	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57457	3246210142	27.04.1984	TEST	27	29.2	BASA	8.5	0.8	-	7	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57457	3246210142	27.04.1984	DEV	-	-	-	8.5	-	0:15	7	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57462	3246210147	02.01.1984	TEST	28.5	30.4	BASA	9	1	-	6	02.01.1985	-	-	2200	7.3	8.1	7400	1500
2462	CRANBOURNE	57462	3246210147	02.01.1984	DEV	-	-	-	9	-	0:15	6	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57468	3246210153	30.07.1985	TEST	39	46	MUST	1.5	0.4	-	20	30.07.1985	-	-	2000	0	7.6	6600	569.1
2462	CRANBOURNE	57468	3246210153	30.07.1985	DEV	-	-	-	1.5	-	0:30	20	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57476	3246210161	27.03.1972	TEST	5.2	7	GRAV	1.8	0.1	-	1.8	05.06.1979	-	488	206	38	7.3	890	-
2462	CRANBOURNE	57476	3246210161	27.03.1972	TEST	54	56.7	BASA	2.7	12.6	-	21.3	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57480	3246210165	26.05.1986	TEST	27.5	30	SAND	5.5	0.5	-	10	26.05.1986	-	-	1300	0.5	8.2	4400	1006.8
2462	CRANBOURNE	57480	3246210165	26.05.1986	DEV	-	-	-	5.5	-	0:15	10	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57485	3246210170	21.11.1986	TEST	16.8	17.5	SAND	2	0.5	-	7	21.11.1986	-	-	150	0.1	7.8	600	105.7
2462	CRANBOURNE	57485	3246210170	21.11.1986	DEV	-	-	-	2	-	0:15	7	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57486	3246210171	16.04.1987	TEST	19.6	20.6	SAND	0.2	0.8	-	9	16.04.1987	-	-	140	0	7.6	590	78.5
2462	CRANBOURNE	57486	3246210171	16.04.1987	DEV	-	-	-	0.2	-	0:30	9	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57488	3246210173	16.10.1986	TEST	31	37.2	BASA	10	18.9	-	0	16.10.1986	-	-	2000	0	8	5800	1406.2
2462	CRANBOURNE	57488	3246210173	16.10.1986	DEV	-	-	-	10	-	0:30	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57498	3246215004	19.12.1986	TEST	17.6	23.7	BASA	7.6	2.1	-	10	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57498	3246215004	19.12.1986	DEV	-	-	-	7.6	-	2:00	10	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57382	3246210066	27.04.1978	TEST	23.5	42.1	CLAY	6.1	12.6	-	6.1	05.05.1978	-	3951	2223	26	8.1	6800	-
2462	CRANBOURNE	57382	3246210066	27.04.1978	DEV	-	-	-	6.1	-	4:30	6.1	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57410	3246210094	20.12.1981	TEST	24.4	43	BASA	18.3	1		12.2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57410	3246210094	20.12.1981	DEV	-	-	-	18.3	-	1:00	12.2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	113068	-	03.04.1992	TEST	10.5	12.5	SAND	0	0	-	0	03.04.1992	-	-	200	-	6.4	830	-
2462	CRANBOURNE	113068	-	03.04.1992	DEV	-	-	-	1.8	-	1:00	4.5	-	-	-	-	-	-	-	-
2462	CRANBOURNE	126975	-	10.01.1996	DEV	-	-	-	17.8	-	2:00	31.2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	129572	-	20.12.1996	DEV	-	-	-	4	-	1:00	-	24.12.1996	-	-	-	0.1	8	2700	570
2462	CRANBOURNE	140030	-	31.12.1998	DEV	-	-	-	9	-	0:30	-	-	-	-	-	-	-	-	-

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GMS DATABASE SEARCH RESULTS
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PARISH NO	PARISH NAME	SITE NO	DITR NO	DATE COMPLETED	ACTIVITY TYPE	AQUIF FROM (m)	AQUIF TO (m)	LITH	SWL (m)	PUMP RATE (1/sec)	TIME (h:m)	DRAW DOWN (m)	LATEST DATE SAMPLED	ANALY MTH	TSS	CL	FE TOTAL	PH	EC	HARD
2462	CRANBOURNE	57250	3246208069	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	305316	3246200057	11.05.1974	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	142306	-	28.04.2000	DEV	-	-	-	9.6	-	0:30	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	143841	-	24.04.2000	TEST	27	28	-	0	1.1	-	0	-	-	-	-	-	-	-	-
2462	CRANBOURNE	143841	-	24.04.2000	DEV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	144540	-	10.07.2001	DEV	-	-	-	-	-	0:30	40	-	-	-	-	-	-	-	-
2462	CRANBOURNE	144672	-	18.12.2000	DEV	-	-	-	5	-	0:30	31	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9023938/1	-	08.12.2005	TEST	42	44	-	4	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9023938/1	-	08.12.2005	TEST	56.5	57	-	4	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9025419/1	-	18.10.2006	DEV	-	-	-	6.2	-	0:15	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9025972/1	-	13.07.2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9027043/1	-	07.03.2007	TEST	18	95	CLAY	8	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9030639/1	-	25.10.2008	DEV	-	-	-	10	-	0:15	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9033879/1	-	05.03.2008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57242	3246208061	01.01.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57429	3246210114	26.07.1983	TEST	13.8	15.8	BASA	8	0.8	-	5	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57429	3246210114	26.07.1983	DEV	-	-	-	8	-	-	5	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57430	3246210115	17.06.1983	TEST	16	19.3	BASA	4	0.9	-	2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57430	3246210115	17.06.1983	DEV	-	-	-	4	-	0:15	2	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57231	3246208050	31.12.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/1	-	12.01.2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/2	-	12.01.2009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57225	3246208044	31.12.1968	TEST	38.1	38.7	BASA	10.1	7.8	-	0	05.06.1979	-	1599	732	2	8.5	2830	-
2462	CRANBOURNE	57225	3246208044	31.12.1968	DEV	-	-	-	10.1	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57227	3246208046	31.12.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57226	3246208045	31.12.1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57436	3246210121	02.12.1982	TEST	31.5	50	BASA	5	0.5	-	0	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57436	3246210121	02.12.1982	DEV	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57437	3246210122	03.12.1982	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57439	3246210124	16.12.1982	TEST	26.5	34.6	BASA	0	0.8	-	0	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57439	3246210124	16.12.1982	DEV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3487	SHERWOOD	91697	3348710113	07.09.1983	TEST	27.4	39.6	BASA	7	0.6	-	9.1	-	-	-	-	-	-	-	-
3487	SHERWOOD	91697	3348710113	07.09.1983	DEV	-	-	-	7	-	0:30	9.1	-	-	-	-	-	-	-	-
3487	SHERWOOD	91692	3348710108	08.03.1983	TEST	23.8	43.6	BASA	15.2	0.6	-	15.2	-	-	-	-	-	-	-	-
3487	SHERWOOD	91692	3348710108	08.03.1983	DEV	-	-	-	15.2	-	-	15.2	-	-	-	-	-	-	-	-
3487	SHERWOOD	141783	-	16.11.1998	DEV	-	-	-	4.5	-	0:30	7	-	-	-	-	-	-	-	-

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GMS DATABASE SEARCH RESULTS
CHEMISTRY

PARISH NO	PARISH NAME	SITE NO	DITR NO	SAMPLE NO	SAMPLE DATE	METHOD	SAMPLE FROM (m)	SAMPLE TO (m)	TSS mg/L	CL mg/L	CO3 mg/L	HCO3 mg/L	TOT ALK mg/L	SO4 mg/L	N mg/L	CA mg/L	MG mg/L	NA mg/L	K mg/L	FE mg/L	HARD mg/L	PH	EC uS/cm
-	-	S9033879/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	S9033879/5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057836	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057838	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057839	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057841	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057842	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK057843	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK058403	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	WRK058404	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	113068	-	46152	03.04.1992	NKN	-	-	-	200	-	-	86	0.6	-	10	22	110	1.9	-	-	6.4	830
2462	CRANBOURNE	126975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	129572	-	83053	24.12.1996	NKN	-	-	-	-	-	-	-	-	-	47	110	300		<0.050	570	8	2700
2462	CRANBOURNE	140030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	142306	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	143841	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	144540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	144672	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	305316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57177	-	4216	23.04.1980	AIR	18	19.5	2786	1356	-	431	-	44	-	50	122	761	3	-	-	7.6	4740
2462	CRANBOURNE	57177	3246200062	4217	23.04.1980	AIR	-	-	2813	1304	-	491	-	70	0.226	55	130	748	4	68	-	7.75	4700
2462	CRANBOURNE	57177	3246200062	4218	23.04.1980	AIR	3	3.4	2946	1488	-	369	-	57	0.226	51	124	826	2	-	-	8.15	5050
2462	CRANBOURNE	57225	-	4246	27.11.1978	AIR	-	-	1693	748	18	338	-	14	-	43	124	349	5	1	-	8.31	2790
2462	CRANBOURNE	57225	3246208044	4247	05.06.1979	BAL	-	-	1599	732	29	323	-	1	-	43	125	329	4	2	-	8.5	2830
2462	CRANBOURNE	57226		4248	28.11.1978	BAL	-	-	4004	2279	-	203	-	107	-	247	232	905	8	8	-	7.67	7000
2462	CRANBOURNE	57226	3246208045	4249	05.06.1979	BAL	-	-	2987	1555	-	367	-	64	-	128	181	671	7	2	-	7.9	5300
2462	CRANBOURNE	57227	-	4250	28.11.1978	BAL	-	-	5436	3250	-	110	-	164	-	192	402	1250	9		-	7.72	9300
2462	CRANBOURNE	57227	3246208046	4251	06.06.1979	BAL	-	-	5249	3150	-	118	-	167	-	199	399	1156	9	1	-	7.92	9450
2462	CRANBOURNE	57227	3246208046	4252	14.01.1980	BAL	-	-	5398	3190	-	178	-	147	-	221	400	1193	6	2	-	7.79	9350
2462	CRANBOURNE	57227	3246208046	4253	30.04.1980	BAL	-	-	5251	3120	-	110	-	144	-	194	384	1214	8	3	-	6.6	9350
2462	CRANBOURNE	57228	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57234	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57242	-	4256	29.05.1981	BAL	-	-	89	21	-	19	-	16	0.226	7	3	13	2	3	-	6.95	158
2462	CRANBOURNE	57250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57251	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57277	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57279	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57281	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57283	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57285	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57286	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57287	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

GMS DATABASE SEARCH RESULTS
CHEMISTRY

PARISH NO	PARISH NAME	SITE NO	DITR NO	SAMPLE NO	SAMPLE DATE	METHOD	SAMPLE FROM (m)	SAMPLE TO (m)	TSS mg/L	CL mg/L	CO3 mg/L	HCO3 mg/L	TOT ALK mg/L	SO4 mg/L	N mg/L	CA mg/L	MG mg/L	NA mg/L	K mg/L	FE mg/L	HARD mg/L	PH	EC uS/cm
2462	CRANBOURNE	57298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57318	-	4259	13.12.1971	FLO	21.33	45.1	-	859	-	321	-	-	-	55	115	-	-	-	-	7.64	3117
2462	CRANBOURNE	57319	-	4260	03.02.1972	BAL	28.04	41.8	-	885	-	412	-	-	-	43	86	-	-	-	-	8.04	3294
2462	CRANBOURNE	57319	3246210003	4261	27.11.1978	BAL	-	-	2987	1554	22	310	-	54	-	83	173	741	7	-	-	8.27	5100
2462	CRANBOURNE	57319	3246210003	4262	05.06.1979	BAL	-	-	3478	1858	-	352	-	92	-	107	220	827	8	24	-	7.65	6200
2462	CRANBOURNE	57319	3246210003	39385	24.11.1987	PUM	40	42.5	-	1900	-	304.878	250	46	-	79	210	940	2.7	0.22	1070.863	7.8	6100
2462	CRANBOURNE	57319	3246210003	40515	17.05.1988	PUM	40	42.5	-	1600	-	329.268	270	48	-	100	200	790	6.4	0	1081.7	7.5	5700
2462	CRANBOURNE	57319	3246210003	41318	16.11.1988	PUM	40	42.5	-	1900	-	304.878	250	51	-	84	220	990	3.1	0.64	1124.948	7.1	6300
2462	CRANBOURNE	57319	3246210003	41924	10.04.1989	PUM	10	42.5	-	1600	-	341.463	280	42	-	80	190	880	3.7	17	990.16	7.7	6100
2462	CRANBOURNE	57319	3246210003	42793	07.12.1989	PUM	40	42.5	-	2000	-	317.073	260	44	-	81	210	910	3.9	-	1075.857	7.4	6000
2462	CRANBOURNE	57319	3246210003	43421	11.04.1990	PUM	40	42.5	-	2000	-	317.073	260	50	-	84	220	970	2.7	-	1124.948	7.2	6400
2462	CRANBOURNE	57319	3246210003	44150	14.11.1990	PUM	40	42.5	-	550	-	207.317	170	340	-	79	79	360	34	-	525.903	7.5	2800
2462	CRANBOURNE	57319	3246210003	44911	09.04.1991	PUM	40	42.5	-	2000	-	304.878	250	51	-	85	220	940	5.7	-	1127.445	7.1	6300
2462	CRANBOURNE	57319	3246210003	45517	18.11.1991	PUM	40	42.5	-	1100	-	268.293	220	230	-	87	140	610	19	-	799.639	7.4	4300
2462	CRANBOURNE	57319	3246210003	46081	05.03.1992	PUM	40	42.5	-	2000	-	317.073	260	56	-	87	210	860	8	-	1090.839	7.3	6400
2462	CRANBOURNE	57319	3246210003	48412	10.12.1992	PUM	40	42.5	3892	2100	-	-	290	120	-	140	260	910	8.1	-	-	7.4	6700
2462	CRANBOURNE	57319	3246210003	50068	30.03.1993	PUM	40	42.5	4036	2200	-	-	280	110	-	150	280	940	14	-	-	7.2	7200
2462	CRANBOURNE	57319	3246210003	54175	25.11.1993	PUM	40	42.5	4078	2200	-	-	280	110	-	160	290	960	16	-	-	7.4	7000
2462	CRANBOURNE	57319	3246210003	68371	27.03.1995	PUM	40	42.5	4192	2300	-	-	280	98	-	160	300	980	12	-	-	7.3	7300
2462	CRANBOURNE	57319	3246210003	81421	11.12.1995	PUM	-	-	4150	2300	-	-	280	100	-	150	290	950	15	-	-	7.4	7600
2462	CRANBOURNE	57319	3246210003	76450	27.03.1996	PUM	-	-	4120	2300	-	-	280	100	-	150	280	940	11	-	-	7.4	7300
2462	CRANBOURNE	57327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57331	-	4271	16.11.1973	AIR	17.08	30.5	5571	3239	-	109	-	242	-	132	269	1552	4	12.3	-	6.55	9800
2462	CRANBOURNE	57331	3246210015	4272	16.11.1973	BAL	90.83	106.7	4029	2310	-	175	-	131	-	209	201	976	10	-	-	7.3	7170
2462	CRANBOURNE	57331	3246210015	4273	16.11.1973	AIR	27.43	45.7	4698	2864	-	100	-	75	-	130	302	1180	4	-	-	6.3	8500
2462	CRANBOURNE	57335	-	4280	28.06.1974	AIR	-	-	6868	4146	-	61	-	154	-	49	362	2037	3	-	-	7.44	12090
2462	CRANBOURNE	57341	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57342	-	4285	09.12.1974	AIR	21.35	25.6	-	-	-	-	-	-	-	-	-	-	-	-	-	6.3	6250
2462	CRANBOURNE	57342	3246210026	4286	15.01.1975	AIR	24.99	0	3506	1885	-	301	-	84	-	98	176	930	4	-	-	7.8	6325
2462	CRANBOURNE	57346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57351	-	4292	16.03.1976	FLO	20.12	32	2282	1259	-	234	-	34	-	103	186	432	8	142	-	7.88	3910
2462	CRANBOURNE	57353	-	4294	15.01.1975	AIR	30.48	30.8	5358	3175	-	174	-	164	-	192	368	1246	8	-	-	6.81	9605
2462	CRANBOURNE	57370	-	23447	29.04.1966	BAL	15.24	16.8	-	1022	-	334	-	47	1.806	65	175	-	-	0.3	-	7.9	-
2462	CRANBOURNE	57370	3246210054	23367	28.06.1967	BAL	-	-	-	1130	55	148	-	34	-	51	207	-	-	0.2	-	8.7	-
2462	CRANBOURNE	57370	3246210054	23448	28.06.1967	BAL	-	-	-	1130	55	148	-	34	-	51	207	-	-	0.2	-	8.7	-
2462	CRANBOURNE	57370	3246210054	23366	29.04.1966	BAL	15.24	16.8	-	1022	-	334	-	47	1.806	65	175	-	-	0.3	-	7.9	-
2462	CRANBOURNE	57370	3246210054	4309	04.05.1977	FLO	15.84	19.5	3924	2100	12	285	-	158	0.451	165	192	974	4	4.2	-	8.22	6600
2462	CRANBOURNE	57370	3246210054	4310	04.05.1977	FLO	27.43	41.1	1474	603	14	356	-	15	-	40	101	304	3	12	-	8.51	2370
2462	CRANBOURNE	57378	-	4320	06.04.1977	AIR	20.1	37.2	1333	620	42	165	-	25	-	48	93	282	4	2	-	8.27	2250
2462	CRANBOURNE	57382	-	4324	05.05.1978	FLO	23.47	42.1	3951	2223		265	-	129	-	206	372	671	8	26	-	8.12	6800
2462	CRANBOURNE	57389	-	4328	26.11.1980	AIR	0	28	2219	1232	15	182	-	29	0.226	96	194	429	4	30	-	8.3	4000
2462	CRANBOURNE	57405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57411	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57412	-	50976	02.02.1982	AIR	12	13.1	1152	540	-	188	-	7	-	35	64	262	2	2	-	7.25	1950
2462	CRANBOURNE	57412	3246210096	50977	02.02.1982	AIR	12	13.1	1179	537	-	190	-	8	0.226	40	61	270	2	2	-	7.6	1950
2462	CRANBOURNE	57423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57428	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57430	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57436	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57437	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57438	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57439	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

GMS DATABASE SEARCH RESULTS
CHEMISTRY

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2462	CRANBOURNE	57440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57442	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57444	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57449	-	32296	26.03.1984	NKN	-	-	-	2400	-	243.902	200	86	-	180	310	870	1.7	2.2	1600	8.3	7400
2462	CRANBOURNE	57453	-	32543	03.07.1984	NKN	-	-	-	2100	-	243.902	200	21	-	150	300	710	7.8	16	1600	8	6600
2462	CRANBOURNE	57456	-	32526	02.07.1984	NKN	14	18	-	220	-	30.488	25	19	-	4.1	14	130	0.1	4.3	70	6.9	850
2462	CRANBOURNE	57457	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	57462	-	33276	02.01.1985	BAL	28.5	30.4	-	2200	-	317.073	260	110	-	130	290	980	5.2	7.3	1500	8.1	7400
2462	CRANBOURNE	57468	-	34635	30.07.1985	BAL	39	46	-	2000	-	146.341	120	130	-	28	120	1100	3	0	569.116	7.6	6600
2462	CRANBOURNE	57476	-	4345	30.03.1972	FLO	5.18	7	-	242	-	198	-	-	-	18	31	-	-	-	-	8.07	1071
2462	CRANBOURNE	57476	3246210161	4346	30.03.1972	FLO	53.95	56.7	-	403	-	142	-	-	-	19	43	-	-	-	-	7.78	1508
2462	CRANBOURNE	57476	3246210161	4347	14.02.1979	AIR	-	-	531	193	-	161	-	5	0.226	21	28	112	2	1	-	7.84	915
2462	CRANBOURNE	57476	3246210161	4348	05.06.1979	BAL	-	-	488	206	-	121	-	1	-	23	25	103	2	38	-	7.3	890
2462	CRANBOURNE	57480	-	36408	26.05.1986	NKN	-	-	-	1300	-	195.122	160	62	-	120	170	520	3.5	0.47	1006.84	8.2	4400
2462	CRANBOURNE	57485	-	37549	21.11.1986	NKN	-	-	-	150	-	54.878	45	7.4	-	9	20	73	1.3	0.15	105.673	7.8	600
2462	CRANBOURNE	57486	-	38372	16.04.1987	NKN	-	-	-	140	-	68.293	56	3.7	-	4.8	16	88	0.9	0	78.546	7.6	590
2462	CRANBOURNE	57488	-	37227	16.10.1986	NKN	-	-	-	2000	-	243.902	200	22	-	130	260	700	7.6	0	1406.21	8	5800
2462	CRANBOURNE	57498	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9023938/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9025419/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9025972/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9027043/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9030639/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9033879/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2462	CRANBOURNE	S9036661/4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3487	SHERWOOD	141783	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3487	SHERWOOD	91692	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3487	SHERWOOD	91697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

GMS DATABASE SEARCH RESULTS
DRILLERS' LOGS

PARISH NO	PARISH NAME	SITE NO	START DATE	DEPTH FROM (m)	DEPTH TO (m)	MATERIAL
-	-	S9033879/2	05.03.2008	0	4	CLAY BROWN
-	-	S9033879/2	05.03.2008	4	15	SILTSTONE YELLOW BROWN HW-MW
-	-	S9033879/3	06.03.2008	0	14.5	CLAY
-	-	S9033879/3	06.03.2008	14.5	15	SILTSTONE
-	-	S9033879/4	06.03.2008	0	14.5	CLAY
-	-	S9033879/5	06.03.2008	0	14.5	CLAY
-	-	S9033879/5	06.03.2008	14.5	15	SILTSTONE
-	-	WRK057836	21.07.2010	0	4	Clay
-	-	WRK057836	21.07.2010	4	8	Silty clay
-	-	WRK057836	21.07.2010	8	10	Silty stiff clay
-	-	WRK057836	21.07.2010	10	16	Clay
-	-	WRK057838	-	-	-	-
-	-	WRK057839	-	-	-	-
-	-	WRK057840	-	-	-	-
-	-	WRK057841	-	-	-	-
-	-	WRK057842	-	-	-	-
-	-	WRK057843	-	-	-	-
-	-	WRK058403	-	-	-	-
-	-	WRK058404	-	-	-	-
2462	CRANBOURNE	113068	03.04.1992	0	0.4	TOP SOIL
2462	CRANBOURNE	113068	03.04.1992	0.4	2	DARK GREY CLAY
2462	CRANBOURNE	113068	03.04.1992	2	6	DARK GREY SANDY CLAY
2462	CRANBOURNE	113068	03.04.1992	6	7.2	DIRTY FINE TO MEDIUM SAND
2462	CRANBOURNE	113068	03.04.1992	7.2	10.5	DARK GREY SILTY CLAY
2462	CRANBOURNE	113068	03.04.1992	10.5	12.5	FINE TO MEDIUM SAND
2462	CRANBOURNE	113068	03.04.1992	12.5	12.8	LIGHT GREY CLAY
2462	CRANBOURNE	126975	10.01.1996	0	0.5	TOP SOIL
2462	CRANBOURNE	126975	10.01.1996	0.5	0.6	COFFEE ROCK
2462	CRANBOURNE	126975	10.01.1996	0.6	7	RED ORANGE & GREY SANDY CLAY
2462	CRANBOURNE	126975	10.01.1996	7	25.5	VOLCANIC CLAY
2462	CRANBOURNE	126975	10.01.1996	25.5	32	WEATHERED BASALT
2462	CRANBOURNE	126975	10.01.1996	32	34	HARD FRESH BASALT
2462	CRANBOURNE	126975	10.01.1996	34	35	DECOMPOSED BASALT
2462	CRANBOURNE	126975	10.01.1996	35	38.5	BROWN COAL & WOOD
2462	CRANBOURNE	126975	10.01.1996	49	49	HONEYCOMB BASALT & LAYERS OF BASALT
2462	CRANBOURNE	129572	20.12.1996	0	0.4	TOP SOIL
2462	CRANBOURNE	129572	20.12.1996	0.4	1	BLACK CLAY
2462	CRANBOURNE	129572	20.12.1996	1	2	ORANGE & GREY CLAY
2462	CRANBOURNE	129572	20.12.1996	2	11	YELLOW & GREY CLAY
2462	CRANBOURNE	129572	20.12.1996	11	20	VOLCANIC CLAY
2462	CRANBOURNE	129572	20.12.1996	20	22	WEATHERED BASALT
2462	CRANBOURNE	129572	20.12.1996	22	24	BROKEN BASALT
2462	CRANBOURNE	140030	31.12.1998	0	3	ORANGE CLAY
2462	CRANBOURNE	140030	31.12.1998	3	19	VOLCANIC CLAY
2462	CRANBOURNE	140030	31.12.1998	19	19.5	BASALT
2462	CRANBOURNE	140030	31.12.1998	19.5	24	MUDSTONE - HARD
2462	CRANBOURNE	140030	31.12.1998	24	39	HARD BASALT
2462	CRANBOURNE	142306	28.04.2000	0	1.3	FINE SAND
2462	CRANBOURNE	142306	28.04.2000	1.3	3	ORANGE CLAY
2462	CRANBOURNE	142306	28.04.2000	3	4.5	LIGHT GREY CLAY
2462	CRANBOURNE	142306	28.04.2000	4.5	25.5	VOLCANIC CLAY
2462	CRANBOURNE	142306	28.04.2000	25.5	35	HARD BASALT
2462	CRANBOURNE	142306	28.04.2000	35	49	MUDSTONE
2462	CRANBOURNE	143841	24.04.2000	0	0.3	TOP SOIL
2462	CRANBOURNE	143841	24.04.2000	0.3	8	CLAY
2462	CRANBOURNE	143841	24.04.2000	8	20	SANDY CLAY
2462	CRANBOURNE	143841	24.04.2000	20	30	DECOMPOSED BASALT
2462	CRANBOURNE	144540	10.07.2001	0	0.8	SANDY TOPSOIL
2462	CRANBOURNE	144540	10.07.2001	0.8	5	GREY CLAY
2462	CRANBOURNE	144540	10.07.2001	5	13	ORANGE GREY CLAY
2462	CRANBOURNE	144540	10.07.2001	13	16	LIGHT GREY CLAY
2462	CRANBOURNE	144540	10.07.2001	16	17	ORANGE CLAY
2462	CRANBOURNE	144540	10.07.2001	17	28	DECOMPOSED BASALT
2462	CRANBOURNE	144540	10.07.2001	28	36	BASALT

Prepared by: A.HAYES
Checked by: M.KRAKIC

GMS DATABASE SEARCH RESULTS
DRILLERS' LOGS

PARISH NO	PARISH NAME	SITE NO	START DATE	DEPTH FROM (m)	DEPTH TO (m)	MATERIAL
2462	CRANBOURNE	144540	10.07.2001	36	40	MUDSTONE
2462	CRANBOURNE	144672	18.12.2000	0	0.3	TOPSOIL
2462	CRANBOURNE	144672	18.12.2000	0.3	1	GREY CLAY
2462	CRANBOURNE	144672	18.12.2000	1	9	MOTTLED CLAY
2462	CRANBOURNE	144672	18.12.2000	9	14.2	DECOMPOSED BASALT
2462	CRANBOURNE	144672	18.12.2000	14.2	31	BASALT
2462	CRANBOURNE	305316	-	-	-	-
2462	CRANBOURNE	57177	-	-	-	-
2462	CRANBOURNE	57225	-	-	-	-
2462	CRANBOURNE	57226	-	-	-	-
2462	CRANBOURNE	57227	-	-	-	-
2462	CRANBOURNE	57228	-	-	-	-
2462	CRANBOURNE	57231	-	-	-	-
2462	CRANBOURNE	57234	-	-	-	-
2462	CRANBOURNE	57240	-	-	-	-
2462	CRANBOURNE	57242	-	-	-	-
2462	CRANBOURNE	57250	-	-	-	-
2462	CRANBOURNE	57251	-	-	-	-
2462	CRANBOURNE	57267	-	-	-	-
2462	CRANBOURNE	57271	-	-	-	-
2462	CRANBOURNE	57272	-	-	-	-
2462	CRANBOURNE	57275	-	-	-	-
2462	CRANBOURNE	57277	-	-	-	-
2462	CRANBOURNE	57278	-	-	-	-
2462	CRANBOURNE	57279	-	-	-	-
2462	CRANBOURNE	57280	-	-	-	-
2462	CRANBOURNE	57281	-	-	-	-
2462	CRANBOURNE	57283	-	-	-	-
2462	CRANBOURNE	57284	-	-	-	-
2462	CRANBOURNE	57285	-	-	-	-
2462	CRANBOURNE	57286	-	-	-	-
2462	CRANBOURNE	57287	-	-	-	-
2462	CRANBOURNE	57298	-	-	-	-
2462	CRANBOURNE	57316	-	-	-	-
2462	CRANBOURNE	57318	14.12.1971	0	0.3	DARK LOAM SOIL
2462	CRANBOURNE	57318	14.12.1971	0.3	1.8	RUSTY CLAY
2462	CRANBOURNE	57318	14.12.1971	1.8	2.4	BROWN AND REDDISH CLAY
2462	CRANBOURNE	57318	14.12.1971	2.4	6.1	HARD BROWN SANDY CLAY
2462	CRANBOURNE	57318	14.12.1971	6.1	9.1	REDDISH CLAY
2462	CRANBOURNE	57318	14.12.1971	9.1	12.2	GREY AND WHITE CLAY
2462	CRANBOURNE	57318	14.12.1971	12.2	14.6	BROWN CLAY
2462	CRANBOURNE	57318	14.12.1971	14.6	18	FINE GRAINED BROWN CLAY
2462	CRANBOURNE	57318	14.12.1971	18	18.3	SAND STONES
2462	CRANBOURNE	57318	14.12.1971	18.3	18.6	GREY CLAY (SIMILAR TO MUDSTONE)
2462	CRANBOURNE	57318	14.12.1971	18.6	21.3	BROWN SOFT BASALT
2462	CRANBOURNE	57318	14.12.1971	21.3	45.1	HARD BASALT
2462	CRANBOURNE	57318	14.12.1971	45.1	45.7	BROWN CLAY
2462	CRANBOURNE	57318	14.12.1971	45.7	48.5	BROWN GREY CLAY
2462	CRANBOURNE	57318	14.12.1971	48.5	48.8	MUDSTONE
2462	CRANBOURNE	57319	03.02.1972	0	0.5	SANDY LOAM
2462	CRANBOURNE	57319	03.02.1972	0.5	3.7	YELLOW CLAY
2462	CRANBOURNE	57319	03.02.1972	3.7	4.9	YELLOW GREY CLAY
2462	CRANBOURNE	57319	03.02.1972	4.9	5.5	RUST IRONY AND GREY CLAY
2462	CRANBOURNE	57319	03.02.1972	5.5	8.8	REDDISH CLAY
2462	CRANBOURNE	57319	03.02.1972	8.8	10.7	REDDISH AND GREY CLAY
2462	CRANBOURNE	57319	03.02.1972	10.7	11.6	GREY AND REDDISH CLAY
2462	CRANBOURNE	57319	03.02.1972	11.6	18.9	GREY AND BROWN CLAY
2462	CRANBOURNE	57319	03.02.1972	18.9	22.3	DARK GREY CLAY
2462	CRANBOURNE	57319	03.02.1972	22.3	25	BROWN COFFEE ROCK
2462	CRANBOURNE	57319	03.02.1972	25	28	HARD COFFEE ROCK
2462	CRANBOURNE	57319	03.02.1972	28	41.8	BASALT
2462	CRANBOURNE	57319	03.02.1972	41.8	43.3	BROWN LIGNITE WITH WOOD
2462	CRANBOURNE	57319	03.02.1972	43.3	44	BROWN BLACK LIGNITE
2462	CRANBOURNE	57319	03.02.1972	44	0	SANDY BLACK MUDSTONE

GMS DATABASE SEARCH RESULTS
DRILLERS' LOGS

PARISH NO	PARISH NAME	SITE NO	START DATE	DEPTH FROM (m)	DEPTH TO (m)	MATERIAL
2462	CRANBOURNE	57327	11.01.1973	0	0.3	GREY TOP SOIL
2462	CRANBOURNE	57327	11.01.1973	0.3	1.8	BROWN GREY CLAY
2462	CRANBOURNE	57327	11.01.1973	1.8	4	BROWN REDDISH CLAY
2462	CRANBOURNE	57327	11.01.1973	4	8.8	GREY BROWN CLAY
2462	CRANBOURNE	57327	11.01.1973	8.8	11	GREY BROWN SANDY CLAY
2462	CRANBOURNE	57327	11.01.1973	11	13.1	BROWN PASTY CLAY
2462	CRANBOURNE	57327	11.01.1973	13.1	22.3	BROWN SAND CLAY
2462	CRANBOURNE	57327	11.01.1973	22.3	51.5	BASALT
2462	CRANBOURNE	57327	11.01.1973	51.5	54.9	BROWN CLAY
2462	CRANBOURNE	57327	11.01.1973	54.9	55.2	MUDSTONE
2462	CRANBOURNE	57331	25.06.1973	0	0.3	DARK SANDY SOIL
2462	CRANBOURNE	57331	25.06.1973	0.3	0.6	GREY SANDY SOIL
2462	CRANBOURNE	57331	25.06.1973	0.6	3	GREY CLAY
2462	CRANBOURNE	57331	25.06.1973	3	16.1	GREY AND BROWN SANDY CLAY
2462	CRANBOURNE	57331	25.06.1973	16.1	22.6	YELLOW MUDSTONE
2462	CRANBOURNE	57331	25.06.1973	22.6	106.7	MUDSTONE
2462	CRANBOURNE	57335	19.04.1974	0	0.3	TOPSOIL
2462	CRANBOURNE	57335	19.04.1974	0.3	9.1	CLAY
2462	CRANBOURNE	57335	19.04.1974	9.1	11.3	SAND
2462	CRANBOURNE	57341	06.11.1974	0	1.5	SAND
2462	CRANBOURNE	57341	06.11.1974	1.5	18.6	CLAY
2462	CRANBOURNE	57341	06.11.1974	18.6	19.5	SAND
2462	CRANBOURNE	57341	06.11.1974	19.5	20.1	CLAY
2462	CRANBOURNE	57342	09.12.1974	0	0.3	TOPSOIL
2462	CRANBOURNE	57342	09.12.1974	0.3	18.3	CLAY
2462	CRANBOURNE	57342	09.12.1974	18.3	25.9	MUDSTONE
2462	CRANBOURNE	57346	20.12.1973	0	0.3	GREY DARK SANDY SOIL
2462	CRANBOURNE	57346	20.12.1973	0.3	1.2	GREY SANDY SOIL AND STONES
2462	CRANBOURNE	57346	20.12.1973	1.2	1.8	RUSTY BROWN AND GREY CLAY
2462	CRANBOURNE	57346	20.12.1973	1.8	15.2	REDDISH AND GREY CLAY
2462	CRANBOURNE	57346	20.12.1973	15.2	24.7	DECOMPOSED BROWN CLAY
2462	CRANBOURNE	57346	20.12.1973	24.7	29.9	BROWN ROCK
2462	CRANBOURNE	57346	20.12.1973	29.9	44.8	BLACK BASALT
2462	CRANBOURNE	57346	20.12.1973	44.8	48.2	BROWN CLAY WITH WOOD
2462	CRANBOURNE	57346	20.12.1973	48.2	48.8	DECOMPOSED MUDSTONE CLAY
2462	CRANBOURNE	57351	02.02.1976	0	0.3	CLAYEY SOIL
2462	CRANBOURNE	57351	02.02.1976	0.3	1.2	YELLOW CLAY
2462	CRANBOURNE	57351	02.02.1976	1.2	2.4	REDDISH CLAY
2462	CRANBOURNE	57351	02.02.1976	2.4	14	DECOMPOSED CLAY
2462	CRANBOURNE	57351	02.02.1976	14	32	BASALT
2462	CRANBOURNE	57353	09.01.1975	0	0.3	TOPSOIL
2462	CRANBOURNE	57353	09.01.1975	0.3	1.2	STONEY CLAY
2462	CRANBOURNE	57353	09.01.1975	1.2	2.6	STONE
2462	CRANBOURNE	57353	09.01.1975	2.6	24.7	CLAY
2462	CRANBOURNE	57353	09.01.1975	24.7	30.8	MUDSTONE
2462	CRANBOURNE	57370	04.05.1977	27.4	41.1	BASALT
2462	CRANBOURNE	57370	04.05.1977	41.1	41.5	BROWN CLAY
2462	CRANBOURNE	57370	04.05.1977	41.5	43.9	BROWN GREY SANDY CLAY
2462	CRANBOURNE	57370	04.05.1977	43.9	44.2	MUDSTONE CLAY
2462	CRANBOURNE	57378	07.04.1977	0	0.6	TOP SOIL
2462	CRANBOURNE	57378	07.04.1977	0.6	1.5	GREY CLAY
2462	CRANBOURNE	57378	07.04.1977	1.5	2.7	YELLOW CLAY
2462	CRANBOURNE	57378	07.04.1977	2.7	17.9	BROWN CLAY
2462	CRANBOURNE	57378	07.04.1977	17.9	19.5	DECOMPOSED BASALT AND BOULDERS
2462	CRANBOURNE	57378	07.04.1977	19.5	37.2	BASALT
2462	CRANBOURNE	57382	27.04.1978	0	0.6	GREY SANDY SOIL
2462	CRANBOURNE	57382	27.04.1978	0.6	4.3	YELLOW CLAY
2462	CRANBOURNE	57382	27.04.1978	4.3	7.6	REDDISH BROWN SANDY CLAY
2462	CRANBOURNE	57382	27.04.1978	7.6	9.4	GREY CLAY
2462	CRANBOURNE	57382	27.04.1978	9.4	19.8	BROWN SPOTTED CLAY
2462	CRANBOURNE	57382	27.04.1978	19.8	23.5	BROWN WHITE CLAY AND WOOD
2462	CRANBOURNE	57382	27.04.1978	23.5	42.1	HARD BASALT
2462	CRANBOURNE	57382	27.04.1978	42.1	43.3	BROWN CLAY
2462	CRANBOURNE	57382	27.04.1978	43.3	44.2	MUDSTONE CLAY

Prepared by: A.HAYES
Checked by: M.KRAKIC

GMS DATABASE SEARCH RESULTS
DRILLERS' LOGS

PARISH NO	PARISH NAME	SITE NO	START DATE	DEPTH FROM (m)	DEPTH TO (m)	MATERIAL
2462	CRANBOURNE	57389	26.11.1980	0	0.5	TOP SOIL
2462	CRANBOURNE	57389	26.11.1980	0.5	3	GREY CLAY
2462	CRANBOURNE	57389	26.11.1980	3	12	VOLCANIC CLAY
2462	CRANBOURNE	57389	26.11.1980	12	14	WHITE CLAY
2462	CRANBOURNE	57389	26.11.1980	14	28	HONEYCOMB BASALT
2462	CRANBOURNE	57405	15.06.1980	24.4	44.8	BASALT
2462	CRANBOURNE	57405	15.06.1980	44.8	45.7	MUDSTONE
2462	CRANBOURNE	57410	20.12.1981	21.3	43	BASALT
2462	CRANBOURNE	57410	20.12.1981	43	0	BORE DEEPENED ONLY
2462	CRANBOURNE	57411	17.12.1981	22.9	41.8	BASALT
2462	CRANBOURNE	57412	02.02.1982	0	0.2	TOP SOIL
2462	CRANBOURNE	57412	02.02.1982	0.2	1.5	GREY CLAY
2462	CRANBOURNE	57412	02.02.1982	1.5	6	VOLCANIC CLAY
2462	CRANBOURNE	57412	02.02.1982	6	10	WEATHERED BASALT
2462	CRANBOURNE	57412	02.02.1982	10	13.2	BASALT
2462	CRANBOURNE	57423	13.11.1982	0	0.3	TOPSOIL
2462	CRANBOURNE	57423	13.11.1982	0.3	11	GREY AND ORANGE CLAY
2462	CRANBOURNE	57423	13.11.1982	11	12	FINE GREY CLAY
2462	CRANBOURNE	57423	13.11.1982	12	16	SANDY GREY AND ORANGE CLAY
2462	CRANBOURNE	57423	13.11.1982	16	16.5	DRIFTY ORANGE SAND
2462	CRANBOURNE	57423	13.11.1982	16.5	17.5	MEDIUM COARSE ORANGE SAND
2462	CRANBOURNE	57423	13.11.1982	17.5	18.5	FINE GREY CLAY
2462	CRANBOURNE	57428	15.02.1983	0	0.7	SANDY TOPSOIL
2462	CRANBOURNE	57428	15.02.1983	0.7	3	ORANGE CLAY
2462	CRANBOURNE	57428	15.02.1983	3	8	YELLOW AND ORANGE CLAY
2462	CRANBOURNE	57428	15.02.1983	8	13	VOLCANIC CLAY
2462	CRANBOURNE	57428	15.02.1983	13	15	SANDSTONE
2462	CRANBOURNE	57429	26.07.1983	0	0.1	TOP SOIL
2462	CRANBOURNE	57429	26.07.1983	0.1	6	LIGHT BROWN CLAY
2462	CRANBOURNE	57429	26.07.1983	6	15.8	BASALT
2462	CRANBOURNE	57430	17.06.1983	0	0.4	TOP SOIL
2462	CRANBOURNE	57430	17.06.1983	0.4	0.7	GREY CLAY
2462	CRANBOURNE	57430	17.06.1983	0.7	5	MOTTLED CLAY
2462	CRANBOURNE	57430	17.06.1983	5	7	GREY CLAY
2462	CRANBOURNE	57430	17.06.1983	7	15.2	DECOMPOSED BASALT
2462	CRANBOURNE	57430	17.06.1983	15.2	19.3	BASALT
2462	CRANBOURNE	57436	02.12.1982	0	0.5	TOP SOIL
2462	CRANBOURNE	57436	02.12.1982	0.5	3	ORANGE AND GREY CLAY
2462	CRANBOURNE	57436	02.12.1982	3	4	GREY CLAY
2462	CRANBOURNE	57436	02.12.1982	4	5.5	RED AND ORANGE AND GREY CLAY
2462	CRANBOURNE	57436	02.12.1982	5.5	17	GREENY ORANGE CLAY
2462	CRANBOURNE	57436	02.12.1982	17	22.3	DARK GREEN AND BROWN
2462	CRANBOURNE	57436	02.12.1982	22.3	24.5	DECOMPOSED BASALT
2462	CRANBOURNE	57436	02.12.1982	24.5	25	VOLCANIC CLAY AND BROKEN BASALT
2462	CRANBOURNE	57436	02.12.1982	25	41	HARD BASALT
2462	CRANBOURNE	57436	02.12.1982	41	41.5	WEATHERED SANDSTONE AND QUARTZ
2462	CRANBOURNE	57436	02.12.1982	41.5	50	GREY MUDSTONE
2462	CRANBOURNE	57437	03.12.1982	0	0.7	TOPSOIL
2462	CRANBOURNE	57437	03.12.1982	0.7	12	YELLOW AND GREY AND RED CLAY
2462	CRANBOURNE	57437	03.12.1982	12	15.5	RED AND GREEN GREY CLAY
2462	CRANBOURNE	57437	03.12.1982	15.5	23	DECOMPOSED BASALT
2462	CRANBOURNE	57437	03.12.1982	23	26.5	PARTLY DECOMPOSED BASALT
2462	CRANBOURNE	57437	03.12.1982	26.5	27.9	HARD FRESH BASALT
2462	CRANBOURNE	57437	03.12.1982	27.9	45	BASALT
2462	CRANBOURNE	57437	03.12.1982	45	45.6	QUARTZ AND GREY SHALE
2462	CRANBOURNE	57438	14.12.1982	0	0.7	TOP SOIL
2462	CRANBOURNE	57438	14.12.1982	0.7	4	YELLOW AND WHITE SAND CLAY
2462	CRANBOURNE	57438	14.12.1982	4	9	WET CLAY SAND YELLOW
2462	CRANBOURNE	57438	14.12.1982	9	10	BROWN GREEN CLAY
2462	CRANBOURNE	57438	14.12.1982	10	18	WEATHERED SAND STONE
2462	CRANBOURNE	57438	14.12.1982	18	21	HARD BLUE SHALE
2462	CRANBOURNE	57438	14.12.1982	21	24	HARD BLUE SHALE AND QUARTZ
2462	CRANBOURNE	57439	16.12.1982	0	0.7	TOP SOIL
2462	CRANBOURNE	57439	16.12.1982	0.7	2.5	GREEN BROWN CLAY

GMS DATABASE SEARCH RESULTS
DRILLERS' LOGS

PARISH NO	PARISH NAME	SITE NO	START DATE	DEPTH FROM (m)	DEPTH TO (m)	MATERIAL
2462	CRANBOURNE	57439	16.12.1982	2.5	6.5	GREY WHITE AND RED CLAY
2462	CRANBOURNE	57439	16.12.1982	6.5	7.5	YELLOW, GREY MAUVE CLAY
2462	CRANBOURNE	57439	16.12.1982	7.5	8	GREENY BROWN CLAY
2462	CRANBOURNE	57439	16.12.1982	8	12	YELLOW AND GREY CLAY
2462	CRANBOURNE	57439	16.12.1982	12	21	DECOMPOSE BASALT
2462	CRANBOURNE	57439	16.12.1982	21	25.3	PARTLY WEATHERED BASALT
2462	CRANBOURNE	57439	16.12.1982	25.3	34.6	BASALT
2462	CRANBOURNE	57439	16.12.1982	34.6	36.6	GREY SHALE
2462	CRANBOURNE	57440	17.12.1982	0	0.7	TOP SOIL
2462	CRANBOURNE	57440	17.12.1982	0.7	3	YELLOW AND RED AND LIGHT GREY CLAY
2462	CRANBOURNE	57440	17.12.1982	3	8.2	GREY CLAY SAND
2462	CRANBOURNE	57440	17.12.1982	8.2	12	GREEN BROWN CLAY
2462	CRANBOURNE	57440	17.12.1982	12	14	BLUE GREY AND WHITE CLAY
2462	CRANBOURNE	57440	17.12.1982	14	17	YELLOW CLAY
2462	CRANBOURNE	57440	17.12.1982	17	21	WEATHERED MUDSTONE
2462	CRANBOURNE	57440	17.12.1982	21	24	BLUE MUDSTONE
2462	CRANBOURNE	57441	01.03.2001	0	9	CLAY
2462	CRANBOURNE	57441	01.03.2001	9	21	SANDSTONE
2462	CRANBOURNE	57441	01.03.2001	21	63	DRIFT
2462	CRANBOURNE	57441	01.03.2001	63	78	SANDSTONE
2462	CRANBOURNE	57441	01.03.2001	78	87	CLAY
2462	CRANBOURNE	57441	01.03.2001	87	105	LIMESTONE
2462	CRANBOURNE	57442	10.01.1983	0	0.5	TOP SOIL
2462	CRANBOURNE	57442	10.01.1983	0.5	2.5	YELLOW BROWN AND GREY CLAY
2462	CRANBOURNE	57442	10.01.1983	2.5	5	RED AND YELLOW GREY CLAY
2462	CRANBOURNE	57442	10.01.1983	5	7.5	GREEN BROWN CLAY
2462	CRANBOURNE	57442	10.01.1983	7.5	18	WEATHERED BASALT
2462	CRANBOURNE	57442	10.01.1983	18	26	PARTLY WEATHERED BASALT
2462	CRANBOURNE	57442	10.01.1983	26	38.1	FRESH BASALT
2462	CRANBOURNE	57442	10.01.1983	38.1	39.6	BROWN CLAY
2462	CRANBOURNE	57444	09.12.1982	0	0.5	TOP SOIL
2462	CRANBOURNE	57444	09.12.1982	0.5	14	RED, GREY AND YELLOW CLAY
2462	CRANBOURNE	57444	09.12.1982	14	22	GREEN BROWN DECOMPOSED BASALT
2462	CRANBOURNE	57444	09.12.1982	22	23	WEATHERED BASALT
2462	CRANBOURNE	57444	09.12.1982	23	25.5	GREY BASALT
2462	CRANBOURNE	57444	09.12.1982	25.5	42	BASALT
2462	CRANBOURNE	57444	09.12.1982	42	42.5	BROWN COAL, QUARTZ AND SHELL
2462	CRANBOURNE	57449	26.03.1984	0	1	TOPSOIL
2462	CRANBOURNE	57449	26.03.1984	1	2.3	GREY SANDY CLAY
2462	CRANBOURNE	57449	26.03.1984	2.3	8	YELLOW AND GREY CLAY
2462	CRANBOURNE	57449	26.03.1984	8	9	IRONSTONE
2462	CRANBOURNE	57449	26.03.1984	9	11.7	YELLOW AND GREY CLAY
2462	CRANBOURNE	57449	26.03.1984	11.7	13	LIGHT BLUE CLAY
2462	CRANBOURNE	57449	26.03.1984	13	16	WHITE CLAY
2462	CRANBOURNE	57449	26.03.1984	16	18.5	DECOMPOSED BASALT
2462	CRANBOURNE	57449	26.03.1984	18.5	21.5	WEATHERED BASALT
2462	CRANBOURNE	57449	26.03.1984	21.5	22	BASALT
2462	CRANBOURNE	57453	03.07.1984	0	0.3	BROWN SOIL
2462	CRANBOURNE	57453	03.07.1984	0.3	0.6	GREY SOIL
2462	CRANBOURNE	57453	03.07.1984	0.6	2.4	YELLOW AND REDDISH CLAY
2462	CRANBOURNE	57453	03.07.1984	2.4	6.7	GREY DECOMPOSED CLAY
2462	CRANBOURNE	57453	03.07.1984	6.7	19.2	BROWN DECOMPOSED CLAY
2462	CRANBOURNE	57453	03.07.1984	19.2	20.1	BROWN AND BLACK BASALT
2462	CRANBOURNE	57453	03.07.1984	20.1	41.8	HARD BLACK BASALT
2462	CRANBOURNE	57456	02.07.1984	0	0.4	TOP SOIL
2462	CRANBOURNE	57456	02.07.1984	0.4	3	HARD YELLOW CLAY
2462	CRANBOURNE	57456	02.07.1984	3	10.7	MOTTLED CLAY
2462	CRANBOURNE	57456	02.07.1984	10.7	13.2	VOLCANIC CLAY
2462	CRANBOURNE	57456	02.07.1984	13.2	14.5	GREY SANDY CLAY
2462	CRANBOURNE	57456	02.07.1984	14.5	15	ORANGE SAND
2462	CRANBOURNE	57456	02.07.1984	15	17	WHITE SANDY CLAY
2462	CRANBOURNE	57456	02.07.1984	17	18	MEDIUM SAND
2462	CRANBOURNE	57457	27.04.1984	0	0.6	TOP SOIL
2462	CRANBOURNE	57457	27.04.1984	0.6	4.5	HARD YELLOW CLAY

GMS DATABASE SEARCH RESULTS
DRILLERS' LOGS

PARISH NO	PARISH NAME	SITE NO	START DATE	DEPTH FROM (m)	DEPTH TO (m)	MATERIAL
2462	CRANBOURNE	57457	27.04.1984	4.5	7	SOFT WHITE CLAY
2462	CRANBOURNE	57457	27.04.1984	7	24	DECOMPOSED BASALT
2462	CRANBOURNE	57457	27.04.1984	24	29.2	WEATHERED BASALT
2462	CRANBOURNE	57457	27.04.1984	29.2	0	HARD BASALT
2462	CRANBOURNE	57462	02.01.1984	0	0.8	TOPSOIL SANDY ORANGE AND GREY
2462	CRANBOURNE	57462	02.01.1984	0.8	8.5	SANDY CLAY
2462	CRANBOURNE	57462	02.01.1984	8.5	10	HARD GREY SANDY CLAY
2462	CRANBOURNE	57462	02.01.1984	10	25	ORANGE AND GREY SANDY CLAY
2462	CRANBOURNE	57462	02.01.1984	25	28.5	DECOMPOSED BASALT
2462	CRANBOURNE	57462	02.01.1984	28.5	30.4	BASALT
2462	CRANBOURNE	57468	30.07.1985	0	0.3	TOPSOIL
2462	CRANBOURNE	57468	30.07.1985	0.3	1.5	MOTTLED CLAY
2462	CRANBOURNE	57468	30.07.1985	1.5	7	ORANGE AND GREY CLAY
2462	CRANBOURNE	57468	30.07.1985	7	18	ORANGE AND GREY SANDY CLAY
2462	CRANBOURNE	57468	30.07.1985	18	22	GREY SANDY CLAY
2462	CRANBOURNE	57468	30.07.1985	22	25.7	DARK GREY SANDY CLAY
2462	CRANBOURNE	57468	30.07.1985	25.7	27	BLACK SOFT CLAY
2462	CRANBOURNE	57468	30.07.1985	27	34.7	VOLCANIC CLAY
2462	CRANBOURNE	57468	30.07.1985	34.7	36	SANDSTONE
2462	CRANBOURNE	57468	30.07.1985	36	46	MUDSTONE
2462	CRANBOURNE	57476	27.03.1972	0	0.9	TOP SOIL
2462	CRANBOURNE	57476	27.03.1972	0.9	5.2	ORANGE GREY CLAY
2462	CRANBOURNE	57476	27.03.1972	5.2	7	ORANGE GRAVEL-WATER BEARING
2462	CRANBOURNE	57476	27.03.1972	7	19.2	GREY-ORANGE CLAY
2462	CRANBOURNE	57476	27.03.1972	19.2	20.1	MUDSTONE LT-BROWN
2462	CRANBOURNE	57476	27.03.1972	20.1	30.8	DECOMPOSED BASALT WITH SMALL SEAMS OF CLAY
2462	CRANBOURNE	57476	27.03.1972	30.8	39	DECOMPOSED BASALT WITH SMALL SLATE SEAMS
2462	CRANBOURNE	57476	27.03.1972	39	54	PYRITIFEROUS BASALT WITH SLATE SEAMS
2462	CRANBOURNE	57476	27.03.1972	54	56.7	PYRITIFEROUS BASALT, QUARTZ AND SLATE RUBBLE
2462	CRANBOURNE	57476	27.03.1972	56.7	61	PYRITIFEROUS BASALT WITH SLATE SEAMS
2462	CRANBOURNE	57480	26.05.1986	0	0.6	TOP SOIL
2462	CRANBOURNE	57480	26.05.1986	0.6	1	GREY CLAY
2462	CRANBOURNE	57480	26.05.1986	1	7	MOTTLED CLAY
2462	CRANBOURNE	57480	26.05.1986	7	8.5	GREY SANDY CLAY
2462	CRANBOURNE	57480	26.05.1986	8.5	14	ORANGE AND GREY SANDY CLAY
2462	CRANBOURNE	57480	26.05.1986	14	15	IRON STONE
2462	CRANBOURNE	57480	26.05.1986	15	21.5	BROWN SANDY CLAY
2462	CRANBOURNE	57480	26.05.1986	21.5	23	BROWN SILT
2462	CRANBOURNE	57480	26.05.1986	23	27.5	BROWN SILT AND SHELL
2462	CRANBOURNE	57480	26.05.1986	27.5	30	FINE SAND AND SHELLS
2462	CRANBOURNE	57480	26.05.1986	30	0	SAND STONE
2462	CRANBOURNE	57485	21.11.1986	0	0.3	TOPSOIL
2462	CRANBOURNE	57485	21.11.1986	0.3	2	ORANGE AND GREY CLAY
2462	CRANBOURNE	57485	21.11.1986	2	9	VOLCANIC CLAY
2462	CRANBOURNE	57485	21.11.1986	9	12	WHITE CLAY
2462	CRANBOURNE	57485	21.11.1986	12	12.2	SANDY DRIFT
2462	CRANBOURNE	57485	21.11.1986	12.2	16.8	LIGHT GREY CLAY
2462	CRANBOURNE	57485	21.11.1986	16.8	17.5	MEDIUM SAND
2462	CRANBOURNE	57486	16.04.1987	0	0.6	SANDY TOPSOIL
2462	CRANBOURNE	57486	16.04.1987	0.6	8	ORANGE AND SANDY CLAY
2462	CRANBOURNE	57486	16.04.1987	8	14	HARD RED AND GREY CLAY
2462	CRANBOURNE	57486	16.04.1987	14	19.5	SOFTER GREY SANDY CLAY
2462	CRANBOURNE	57486	16.04.1987	19.5	20.6	MEDIUM SAND
2462	CRANBOURNE	57488	16.10.1986	0	0.4	SANDY LOAM
2462	CRANBOURNE	57488	16.10.1986	0.4	1	FINE YELLOW SAND
2462	CRANBOURNE	57488	16.10.1986	1	3	YELLOW CLAY
2462	CRANBOURNE	57488	16.10.1986	3	4	RED AND YELLOW CLAY
2462	CRANBOURNE	57488	16.10.1986	4	4.5	LIGHT GREY SANDY CLAY
2462	CRANBOURNE	57488	16.10.1986	4.5	23.8	DECOMPOSED BASALT
2462	CRANBOURNE	57488	16.10.1986	23.8	24.6	WEATHERED BASALT
2462	CRANBOURNE	57488	16.10.1986	24.6	37.2	BASALT

GMS DATABASE SEARCH RESULTS
DRILLERS' LOGS

PARISH NO	PARISH NAME	SITE NO	START DATE	DEPTH FROM (m)	DEPTH TO (m)	MATERIAL
2462	CRANBOURNE	57498	19.12.1986	0	17.6	CLAY TOPSOIL AND MOIST CLAYS
2462	CRANBOURNE	57498	19.12.1986	17.6	18	WEATHERED BASALT AND GRAVEL
2462	CRANBOURNE	57498	19.12.1986	18	23.7	HARD-V HARD BR-BLACK BASALT/MINOR GREEN SOAPSTONE
2462	CRANBOURNE	S9023938/1	08.12.2005	0	0.3	TOP SOIL
2462	CRANBOURNE	S9023938/1	08.12.2005	0.3	19	SANDY CLAY
2462	CRANBOURNE	S9023938/1	08.12.2005	19	24	STIFF CLAY
2462	CRANBOURNE	S9023938/1	08.12.2005	24	29	LIGNOUS CLAY
2462	CRANBOURNE	S9023938/1	08.12.2005	29	33	VOLCANIC CLAY
2462	CRANBOURNE	S9023938/1	08.12.2005	33	37	SOFT CLAY
2462	CRANBOURNE	S9023938/1	08.12.2005	37	56.5	FIRM SHALE
2462	CRANBOURNE	S9023938/1	08.12.2005	56.5	57	FRACTURED SHALE
2462	CRANBOURNE	S9025419/1	18.10.2006	0	0.3	TOP SOIL
2462	CRANBOURNE	S9025419/1	18.10.2006	0.3	0.8	GREY CLAY
2462	CRANBOURNE	S9025419/1	18.10.2006	0.8	12	MOTTLED CLAY
2462	CRANBOURNE	S9025419/1	18.10.2006	12	13.5	SILT
2462	CRANBOURNE	S9025419/1	18.10.2006	13.5	20	VOLCANIC CLAY
2462	CRANBOURNE	S9025419/1	18.10.2006	20	35	GOOD FRACTURES
2462	CRANBOURNE	S9025972/1	-	-	-	-
2462	CRANBOURNE	S9027043/1	-	-	-	-
2462	CRANBOURNE	S9030639/1	-	-	-	-
2462	CRANBOURNE	S9033879/1	05.03.2008	0	12	CLAY BROWN
2462	CRANBOURNE	S9036661/1	12.01.2009	0	7	sandy clays
2462	CRANBOURNE	S9036661/2	-	-	-	-
2462	CRANBOURNE	S9036661/3	-	-	-	-
2462	CRANBOURNE	S9036661/4	-	-	-	-
3487	SHERWOOD	141783	16.11.1998	0	0.3	TOPSOIL
3487	SHERWOOD	141783	16.11.1998	0.3	2	BLACK CLAY
3487	SHERWOOD	141783	16.11.1998	2	23	YELLOW & GREY CLAY
3487	SHERWOOD	141783	16.11.1998	23	35	BROWN COAL & LIGNITE
3487	SHERWOOD	141783	16.11.1998	35	38	GREEN SILT & SHELLS
3487	SHERWOOD	141783	16.11.1998	38	49	FINE SAND & SHELLS
3487	SHERWOOD	91692	08.03.1983	0	0.3	GREY SANDY SOIL
3487	SHERWOOD	91692	08.03.1983	0.3	0.9	BROWN SOIL
3487	SHERWOOD	91692	08.03.1983	0.9	2.1	BROWN GREY CLAY
3487	SHERWOOD	91692	08.03.1983	2.1	4.6	GREY BROWN REDDISH CLAY
3487	SHERWOOD	91692	08.03.1983	4.6	12.8	GREY SANDY CLAY
3487	SHERWOOD	91692	08.03.1983	12.8	16.8	DECOMPOSED BASALTIC CLAY
3487	SHERWOOD	91692	08.03.1983	16.8	17.4	BROWN BASALTS
3487	SHERWOOD	91692	08.03.1983	17.4	43.6	HARD BLACK BASALT
3487	SHERWOOD	91692	08.03.1983	43.6	49.1	BROWN CLAYEY COAL
3487	SHERWOOD	91692	08.03.1983	49.1	0	MUDSTONE CLAY
3487	SHERWOOD	91697	07.09.1983	0	0.3	SANDY LOAM
3487	SHERWOOD	91697	07.09.1983	0.3	4.6	BROWN CLAY
3487	SHERWOOD	91697	07.09.1983	4.6	7.9	BRITTLE SANDY BROWN CLAY
3487	SHERWOOD	91697	07.09.1983	7.9	10.7	SOFT BROWN DECOMPOSED CLAY
3487	SHERWOOD	91697	07.09.1983	10.7	12.2	BLACK AND BROWN BASALT
3487	SHERWOOD	91697	07.09.1983	12.2	39.6	BLACK BASALT
3487	SHERWOOD	91697	07.09.1983	39.6	40.2	GREY CLAY
3487	SHERWOOD	91697	07.09.1983	40.2	41.8	BROWN COAL AND SAND FINE
3487	SHERWOOD	91697	07.09.1983	41.8	43	GREY BROWN CLAY
3487	SHERWOOD	91697	07.09.1983	43	43.3	DARK MUDSTONE CLAY

Prepared by: A.HAYES
Checked by: M.KRAKIC

APPENDIX D. SURFACE SAMPLE DESCRIPTIONS

Beveridge Williams
development & environment consultants

Soil sample descriptions	
Job no:	1101542

Client:	Growth Areas Authority	Logged by:	A.HAYES
Project:	Preliminary Environmental Contamination Assessment	Checked by:	B.CLAY
Location:	Clyde Creek & Thompsons Road, Clyde (PSP 53 & PSP 54)	Date:	8/05/2012

Sample	Duplicate/split	Depth	PID (ppm)	CR	Sample description
0805-SS01	0805-SS01A, 0805-D1	0.0-0.1	2.5	0	Sandy SILT, Brown, contains rootlets, moist, no odour
0805-SS02	-	0.0-0.1	5.1	0	SAND, Grey/brown, contains minor silt, coarse grained, very moist, no odour
0805-SS03	-	0.0-0.1	2.5	0	Sandy SILT, Brown, contains rootlets, soft, moist, no odour
0805-SS04	-	0.0-0.1	7.1	0	Sandy SILT, Brown, contains minor clay balls, soft, moist, no odour
0805-SS05	-	0.0-0.1	3.4	0	Silty SAND, Grey/brown, coarse grained, moist, no odour
0805-SS06	-	0.0-0.1	5.1	0	Sandy SILT, Dark brown, contains rootlets, soft, moist, no odour
0805-SS07	-	0.0-0.1	2.6	0	Clayey SILT, Dark brown, contains trace sand and rootlets, moist, no odour
0805-SS08	-	0.0-0.1	3.5	0	Sandy SILT, Brown, contains rootlets, moist, no odour
0805-SS09	-	0.0-0.1	2.1	0	Sandy SILT, Brown, contains trace clay, firm, moist, no odour
0805-SS10	-	0.0-0.1	6.1	0	Sandy SILT, Brown, contains rootlets, moist, no odour
0805-SS11	-	0.0-0.1	4.7	0	SAND, Brown/grey, medium grained, moist, no odour
0805-SS12	-	0.0-0.1	3.2	0	Sandy SILT, Brown, contains rootlets, moist, no odour
0805-SS13	-	0.0-0.1	8.3	0	Sandy SILT, Brown, contains minor crushed rock (<0.5cm), moist, no odour
0805-SS14	-	0.0-0.1	3.9	0	Clayey SILT, Brown, contains trace sand, medium grained, moist, no odour
0805-SS15	-	0.0-0.1	5.4	0	Clayey SILT, Brown, contains rootlets, moist, no odour

Beveridge Williams
development & environment consultants

Soil sample descriptions	
Job no:	1101542

Client:	Growth Area Authority	Logged by:	A.HAYES & J.SERTORI
Project:	Surface Sampling	Checked by:	B.CLAY
Location:	PSP 53 and 54 Clyde Creek, Clyde	Date:	2/07/2012

Sample	Duplicate/split	Depth	PID (ppm)	CR	Sample description
0207-SS01	0207-SS01A, 0207-D1	0.0 - 0.1	0.1	0	Sandy SILT, Brown, contains trace gravel, no odour, wet (rain)
0207-SS02	-	0.0 - 0.1	0.3	0	SAND, Brown, contains minor silt, coarse to medium grained, no odour, wet (rain)
0207-SS03	-	0.0 - 0.1	0.1	0	Sandy SILT, Brown, contains rootlets, sand: fine grained, low plasticity, soft, no odour, moist
0207-SS04	-	0.0 - 0.1	0.1	0	Sandy SILT, Brown, contains rootlets, some clay balls and wood fragments, sand: fine to coarse grained, low plasticity, no odour, moist
0207-SS05	-	0.0 - 0.1	0.1	0	Sandy SILT, Brown, contains minor fine grained gravel, sand: fine to coarse grained, low plasticity, soft, no odour, very moist
0207-SS06	-	0.0 - 0.1	0.3	0	Sandy SILT, Dark brown, contains rootlets, sand: fine to medium grained, soft, no odour, very moist
0207-SS07	-	0.0 - 0.1	0.5	0	Sandy SILT, Brown, contains rootlets, sand: fine grained, no odour, wet (rain)
0207-SS08	-	0.0 - 0.1	0.3	0	Sandy SILT, Brown, contains trace clay, sand: fine to medium grained, soft, no odour, moist
0207-SS09	-	0.0 - 0.1	0.5	0	Sandy SILT, Brown, contains minor rootlets, sand: fine grained, soft, no odour, very moist
0207-SS11	-	0.0 - 0.1	0.5	0	SAND, Brown, contains minor silt and minor fine grained gravel, fine to medium grained, poorly graded, loose, no odour, moist
0207-SS12	-	0.0 - 0.1	0.1	0	Sandy SILT, Brown, contains minor rootlets and trace fine grained gravel, sand: fine grained, no odour, very moist
0207-SS13	-	0.0 - 0.1	0.2	0	Sandy SILT, Brown, contains trace clay and trace fine grained gravel, sand: fine, soft, no odour, moist
0207-SS14	-	0.0 - 0.1	0.1	0	Clayey SILT, Brown, contains rootlets and trace fine grained sand, no odour, wet (rain)
0207-SS15	-	0.0 - 0.1	0.3	0	Sandy SILT, Brown, contains minor clay and wood fragments, very soft, no odour, wet (rain)

APPENDIX E. TABULATED CHEMICAL TESTING RESULTS

Table 1
Chemical Testing Results

Beveridge Williams

					Heavy Metals																		
					Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium (III+VI)	Cobalt	Copper	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Silver	Tin	Vanadium	Zinc
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					5	5	5	5	10	0.2	5	5	5	5	5	0.05	5	5	3	5	5	5	5
					20	**20**	**300**	**20**	**3000**	**3**	**400**	**50**	**100**	**300**	**500**	**1**	**40**	**60**	**10**	**10**	**50**	**50**	**200**
ANZECC B					20	20				3			60	300	1500	1		60			50		200
NEPM 1999 EIL						20	300			3			100	600	500	1		60				50	200
NEPM 1999 HIL A						100		20	3000	20		100	1000	300	1500	15		600					7000
USEPA - Region 3,6,9 - Residential Soil					31	0.39	15000	160	16000	70		23	3100	400	1800	10	390	1500	390	390	47000		23000
NEPM 1999 HIL D						400		80	12000	80		400	4000	1200	6000	60		2400					28000
NEPM 1999 HIL E						200		40	6000	40		200	2000	600	3000	30		600					14000
NEPM 1999 HIL F						500		100	15000	100		500	5000	1500	7500	75		3000					35000
Vic EPA Category B Contaminated Soil						2000				400			20000	6000		300	4000	12000	200	720			140000
Vic EPA Category C Contaminated Soil						500				100			5000	1500		75	1000	3000	50	180	500		35000
VIC EPA Fill						20				3			100	300		1	40	60	10	10	50		200
Field ID	**LocCode**	**Sample Depth Range**	**Sampled Date**	**Matrix Description**																			
0805-SS01	SS01	0.0-0.1	8/05/2012	sandy SILT	<5	**33**	27	<5	<10	0.2	35	<5	52	7	150	<0.05	<5	9	<3	<5	<5	**73**	79
0805-SS02	SS02	0.0-0.1	8/05/2012	SAND	<5	<5	<5	<5	<10	<0.2	<5	<5	5	<5	34	<0.05	<5	<5	<3	<5	<5	7	17
0805-SS03	SS03	0.0-0.1	8/05/2012	sandy SILT	<5	<5	12	<5	<10	<0.2	<5	<5	<5	6	49	<0.05	<5	<5	<3	<5	<5	9	6
0805-SS04	SS04	0.0-0.1	8/05/2012	sandy SILT	<5	<5	17	<5	<10	0.3	13	<5	<5	6	49	<0.05	<5	<5	<3	<5	<5	36	11
0805-SS05	SS05	0.0-0.1	8/05/2012	silty SAND	<5	<5	7	<5	<10	<0.2	<5	<5	13	<5	26	<0.05	<5	<5	<3	<5	<5	7	13
0805-SS06	SS06	0.0-0.1	8/05/2012	sandy SILT	<5	7	100	<5	<10	0.7	16	<5	22	76	200	0.06	<5	12	<3	<5	<5	19	**630**
0805-SS07	SS07	0.0-0.1	8/05/2012	clayey SILT	<5	<5	24	<5	<10	<0.2	13	<5	<5	7	110	<0.05	<5	<5	4	<5	<5	19	8
0805-SS08	SS08	0.0-0.1	8/05/2012	sandy SILT	<5	<5	54	<5	<10	<0.2	18	23	30	9	480	<0.05	<5	52	4	<5	<5	25	77
0805-SS09	SS09	0.0-0.1	8/05/2012	sandy SILT	<5	<5	20	<5	<10	<0.2	9	<5	<5	6	41	<0.05	<5	<5	<3	<5	<5	13	8
0805-SS10	SS10	0.0-0.1	8/05/2012	sandy SILT	<5	<5	18	<5	<10	0.5	5	<5	5	6	79	<0.05	<5	<5	<3	<5	<5	10	15
0805-SS11	SS11	0.0-0.1	8/05/2012	SAND	<5	6	24	<5	<10	<0.2	18	<5	74	6	280	<0.05	<5	10	<3	<5	8	17	**290**
0805-SS12	SS12	0.0-0.1	8/05/2012	sandy SILT	<5	9	11	<5	<10	0.2	14	<5	10	<5	52	<0.05	<5	<5	<3	<5	<5	36	28
0805-SS13	SS13	0.0-0.1	8/05/2012	sandy SILT	<5	5	43	<5	<10	0.4	40	9	38	13	280	<0.05	<5	17	4	<5	<5	**51**	96
0805-SS14	SS14	0.0-0.1	8/05/2012	clayey SILT	<5	<5	150	<5	<10	<0.2	67	24	37	6	410	<0.05	<5	**89**	6	<5	<5	**71**	47
0805-SS15	SS15	0.0-0.1	8/05/2012	clayey SILT	<5	9	18	<5	<10	<0.2	51	9	12	12	53	<0.05	<5	18	4	<5	<5	**100**	34
0207-SS01	SS01	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS02	SS02	0.0-0.1	2/07/2012	SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS03	SS03	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS04	SS04	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS05	SS05	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS06	SS06	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS07	SS07	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS08	SS08	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS09	SS09	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS11	SS11	0.0-0.1	2/07/2012	SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS12	SS12	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS13	SS13	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS14	SS14	0.0-0.1	2/07/2012	clayey SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS15	SS15	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 1
Chemical Testing Results

Beveridge Williams

					PAH															
					Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene	PAHs (Sum of total)
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
									1									**3**			**20**
ANZECC B																					
NEPM 1999 EIL																					
NEPM 1999 HIL A									1												20
USEPA - Region 3,6,9 - Residential Soil					3400		17000	0.15	0.015	0.15		1.5	15	0.015	2300	2300	0.15	3.6		1700	
NEPM 1999 HIL D									4												80
NEPM 1999 HIL E									2												40
NEPM 1999 HIL F									5												100
Vic EPA Category B Contaminated Soil									20												400
Vic EPA Category C Contaminated Soil									5												100
VIC EPA Fill									1												20
Field ID	**LocCode**	**Sample Depth Range**	**Sampled Date**	**Matrix Description**																	
0805-SS01	SS01	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS02	SS02	0.0-0.1	8/05/2012	SAND	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS03	SS03	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS04	SS04	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS05	SS05	0.0-0.1	8/05/2012	silty SAND	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS06	SS06	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS07	SS07	0.0-0.1	8/05/2012	clayey SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS08	SS08	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS09	SS09	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS10	SS10	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS11	SS11	0.0-0.1	8/05/2012	SAND	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS12	SS12	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS13	SS13	0.0-0.1	8/05/2012	sandy SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS14	SS14	0.0-0.1	8/05/2012	clayey SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0805-SS15	SS15	0.0-0.1	8/05/2012	clayey SILT	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
0207-SS01	SS01	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS02	SS02	0.0-0.1	2/07/2012	SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS03	SS03	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS04	SS04	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS05	SS05	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS06	SS06	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS07	SS07	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS08	SS08	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS09	SS09	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS11	SS11	0.0-0.1	2/07/2012	SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS12	SS12	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS13	SS13	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS14	SS14	0.0-0.1	2/07/2012	clayey SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS15	SS15	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 1
Chemical Testing Results

Beveridge Williams

						Organochlorine Pesticides																										
						4,4-DDE	a-BHC	Aldrin	Aldrin + Dieldrin	b-BHC	Chlordane	Chlordane (cis)	Chlordane (trans)	d-BHC	DDD	DDT	DDT+DDE+DDD	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan sulphate	Endrin	Endrin aldehyde	Endrin ketone	g-BHC (Lindane)	Heptachlor	Heptachlor epoxide	Hexachlorobenzene	Methoxychlor	Heptachlor (including its epoxide)	Organochlorine pesticide	Other organochlorine pesticides
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL						0.05	0.05	0.05		0.05		0.05	0.05	0.05	0.05	0.05		0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05			
											50							**0.2**								**10**					**1**	
ANZECC B																		0.2														
NEPM 1999 EIL																																
NEPM 1999 HIL A									10		50						200									10						
USEPA - Region 3,6,9 - Residential Soil						1.4	0.077	0.029		0.27					2	1.7		0.03				18			0.52	0.11	0.053	0.3	310			
NEPM 1999 HIL D									40		200						800									40						
NEPM 1999 HIL E									20		100						400									20						
NEPM 1999 HIL F									50		250						1000									50						
Vic EPA Category B Contaminated Soil									4.8		16						50									4.8						50
Vic EPA Category C Contaminated Soil									1.2		4						50									1.2						10
VIC EPA Fill																															1	
Field ID	**LocCode**	**Sample Depth Range**	**Sampled Date**	**Matrix Description**																												
0805-SS01	SS01	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS02	SS02	0.0-0.1	8/05/2012	SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS03	SS03	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS04	SS04	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS05	SS05	0.0-0.1	8/05/2012	silty SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS06	SS06	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS07	SS07	0.0-0.1	8/05/2012	clayey SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS08	SS08	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS09	SS09	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS10	SS10	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS11	SS11	0.0-0.1	8/05/2012	SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS12	SS12	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS13	SS13	0.0-0.1	8/05/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS14	SS14	0.0-0.1	8/05/2012	clayey SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0805-SS15	SS15	0.0-0.1	8/05/2012	clayey SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS01	SS01	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS02	SS02	0.0-0.1	2/07/2012	SAND	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS03	SS03	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS04	SS04	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS05	SS05	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS06	SS06	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS07	SS07	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS08	SS08	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS09	SS09	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS11	SS11	0.0-0.1	2/07/2012	SAND	<0.05	<0.05	<0.05	0.135	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	0.11	0.18	0.21	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	0.925	0.715
0207-SS12	SS12	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS13	SS13	0.0-0.1	2/07/2012	sandy SILT	0.16	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	0.07	<0.05	0.255	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	0.68	<0.75
0207-SS14	SS14	0.0-0.1	2/07/2012	clayey SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75
0207-SS15	SS15	0.0-0.1	2/07/2012	sandy SILT	<0.05	<0.05	<0.05	<0.1	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.15	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<1	<0.75

Table 1
Chemical Testing Results

Beveridge Williams

						TPH					TRH						BTEX							MAH
						TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29 - C36	TPH C10 - C36 (Sum of total)	TRH C6 - C10	TRH C6 - C10 minus BTEX	TRH >C10 - C16	TRH >C16 - C34	TRH >C34 - C40	TRH >C10 - C40 (Sum of total)	Benzene	Toluene	Ethylbenzene	Xylene Total	Xylene (m & p)	Xylene (o)	BTEX (Sum of total)	Monocyclic Aromatic Hydrocarbons
						mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL						20	20	50	50		20	20	20	50	50	50	0.5	0.5	0.5	1	1	0.5	1	
						65				**1000**	**41**	**41**	**110**				**0.5**	**160**	**57**	**40**				**7**
ANZECC B																	1							
NEPM 1999 EIL																								
NEPM 1999 HIL A																								
USEPA - Region 3,6,9 - Residential Soil																	1.1	5000	5.4	630		690		
NEPM 1999 HIL D																								
NEPM 1999 HIL E																								
NEPM 1999 HIL F																								
Vic EPA Category B Contaminated Soil						2600				40000							16							240
Vic EPA Category C Contaminated Soil						650				10000							4							70
VIC EPA Fill						100				1000							1							7
Field ID	**LocCode**	**Sample Depth Range**	**Sampled Date**	**Matrix Description**																				
0805-SS01	SS01	0.0-0.1	8/05/2012	sandy SILT	<20	<20	<50	<50	<120	<20	<20	<20	<50	<50	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS02	SS02	0.0-0.1	8/05/2012	SAND	<20	<20	<50	<50	<120	<20	<20	<20	<50	<50	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS03	SS03	0.0-0.1	8/05/2012	sandy SILT	<20	<20	<50	<50	<120	<20	<20	<20	<50	<50	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS04	SS04	0.0-0.1	8/05/2012	sandy SILT	<20	<20	<50	<50	<120	<20	<20	<20	<50	<50	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS05	SS05	0.0-0.1	8/05/2012	silty SAND	<20	<20	92	110	212	<20	<20	<20	160	84	240	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS06	SS06	0.0-0.1	8/05/2012	sandy SILT	<20	<20	83	150	243	<20	<20	<20	170	98	270	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS07	SS07	0.0-0.1	8/05/2012	clayey SILT	<20	<20	<50	55	90	<20	<20	<20	50	<50	50	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS08	SS08	0.0-0.1	8/05/2012	sandy SILT	<20	<20	61	130	201	<20	<20	<20	150	110	260	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS09	SS09	0.0-0.1	8/05/2012	sandy SILT	<20	<20	<50	67	102	<20	<20	<20	<50	71	71	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS10	SS10	0.0-0.1	8/05/2012	sandy SILT	<20	<20	<50	80	115	<20	<20	<20	67	52	120	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS11	SS11	0.0-0.1	8/05/2012	SAND	<20	<20	<50	63	98	<20	<20	<20	100	<50	100	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS12	SS12	0.0-0.1	8/05/2012	sandy SILT	<20	<20	<50	<50	<120	<20	<20	<20	<50	<50	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS13	SS13	0.0-0.1	8/05/2012	sandy SILT	<20	<20	<50	<50	<120	<20	<20	<20	<50	<50	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS14	SS14	0.0-0.1	8/05/2012	clayey SILT	<20	<20	<50	<50	<120	<20	<20	<20	<50	<50	<50	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0805-SS15	SS15	0.0-0.1	8/05/2012	clayey SILT	<20	<20	<50	57	92	<20	<20	<20	54	<50	54	<0.5	<0.5	<0.5	<1	<1	<0.5	<1	<4
0207-SS01	SS01	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS02	SS02	0.0-0.1	2/07/2012	SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS03	SS03	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS04	SS04	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS05	SS05	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS06	SS06	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS07	SS07	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS08	SS08	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS09	SS09	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS11	SS11	0.0-0.1	2/07/2012	SAND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS12	SS12	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS13	SS13	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS14	SS14	0.0-0.1	2/07/2012	clayey SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0207-SS15	SS15	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 1
Chemical Testing Results

Beveridge Williams

					Organophosphorous Pesticides									
					Chlorpyrifos	Diazinon	Dichlorvos	Ethion	Fenthion	Malathion	Mevinphos (Phosdrin)	Parathion	Ronnel	Stirophos
					mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EQL					0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
ANZECC B														
NEPM 1999 EIL														
NEPM 1999 HIL A														
USEPA - Region 3,6,9 - Residential Soil					61	43	1.7	31		1200		370	3100	20
NEPM 1999 HIL D														
NEPM 1999 HIL E														
NEPM 1999 HIL F														
Vic EPA Category B Contaminated Soil														
Vic EPA Category C Contaminated Soil														
VIC EPA Fill														
Field ID	**LocCode**	**Sample Depth Range**	**Sampled Date**	**Matrix Description**										
0805-SS01	SS01	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS02	SS02	0.0-0.1	8/05/2012	SAND	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS03	SS03	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS04	SS04	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS05	SS05	0.0-0.1	8/05/2012	silty SAND	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS06	SS06	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS07	SS07	0.0-0.1	8/05/2012	clayey SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS08	SS08	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS09	SS09	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS10	SS10	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS11	SS11	0.0-0.1	8/05/2012	SAND	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS12	SS12	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS13	SS13	0.0-0.1	8/05/2012	sandy SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS14	SS14	0.0-0.1	8/05/2012	clayey SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0805-SS15	SS15	0.0-0.1	8/05/2012	clayey SILT	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
0207-SS01	SS01	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS02	SS02	0.0-0.1	2/07/2012	SAND	-	-	-	-	-	-	-	-	-	-
0207-SS03	SS03	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS04	SS04	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS05	SS05	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS06	SS06	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS07	SS07	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS08	SS08	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS09	SS09	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS11	SS11	0.0-0.1	2/07/2012	SAND	-	-	-	-	-	-	-	-	-	-
0207-SS12	SS12	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS13	SS13	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-
0207-SS14	SS14	0.0-0.1	2/07/2012	clayey SILT	-	-	-	-	-	-	-	-	-	-
0207-SS15	SS15	0.0-0.1	2/07/2012	sandy SILT	-	-	-	-	-	-	-	-	-	-

Table 2
QA/QC Samples
(Duplicate and Split Samples)

Beveridge Williams

SDG	12-21711	12-21711		12-30210	12-30210	
Field ID	0805-SS01	0805-D1	RPD	0207-SS01	0207-D1	RPD
Sampled Date	8/05/2012	8/05/2012		2/07/2012	2/07/2012	
Chem Group	ChemName	Units	EQL						
---	---	---	---	---	---	---	---	---	---
BTEX	Benzene	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.5	0	-	-	-
	Toluene	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.5	0	-	-	-
	Ethylbenzene	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.5	0	-	-	-
	Xylene Total	mg/kg	1 (Primary): 0.15 (Interlab)	<1.0	<1.0	0	-	-	-
	Xylene (m & p)	mg/kg	1 (Primary): 0.1 (Interlab)	<1.0	<1.0	0	-	-	-
	Xylene (o)	mg/kg	0.5 (Primary): 0.05 (Interlab)	<0.5	<0.5	0	-	-	-
	BTEX (Sum of total)	mg/kg	1	<1.0	<1.0	0	-	-	-
Heavy Metals	Antimony	mg/kg	5	<5.0	<5.0	0	-	-	-
	Arsenic	mg/kg	5 (Primary): 2 (Interlab)	**33.0**	**19.0**	**54**	-	-	-
	Barium	mg/kg	5	27.0	32.0	17	-	-	-
	Beryllium	mg/kg	5	<5.0	<5.0	0	-	-	-
	Boron	mg/kg	10	<10.0	<10.0	0	-	-	-
	Cadmium	mg/kg	0.2 (Primary): 0.4 (Interlab)	0.2	<0.2	0	-	-	-
	Chromium (III+VI)	mg/kg	5	35.0	31.0	12	-	-	-
	Cobalt	mg/kg	5	<5.0	<5.0	0	-	-	-
	Copper	mg/kg	5	52.0	49.0	6	-	-	-
	Lead	mg/kg	5	7.0	6.0	15	-	-	-
	Manganese	mg/kg	5	150.0	180.0	18	-	-	-
	Mercury	mg/kg	0.05 (Primary): 0.1 (Interlab)	<0.05	<0.05	0	-	-	-
	Molybdenum	mg/kg	5	<5.0	<5.0	0	-	-	-
	Nickel	mg/kg	5	9.0	9.0	0	-	-	-
	Selenium	mg/kg	3	<3.0	<3.0	0	-	-	-
	Silver	mg/kg	5	<5.0	<5.0	0	-	-	-
	Tin	mg/kg	5	<5.0	<5.0	0	-	-	-
	Vanadium	mg/kg	5	73.0	56.0	26	-	-	-
	Zinc	mg/kg	5	79.0	81.0	3	-	-	-
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	a-BHC	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Aldrin	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	b-BHC	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Chlordane (cis)	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Chlordane (trans)	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	d-BHC	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	DDD	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	DDT	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Dieldrin	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Endosulfan I	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Endosulfan II	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Endosulfan sulphate	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Endrin	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Endrin aldehyde	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Endrin ketone	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	g-BHC (Lindane)	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Heptachlor	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Heptachlor epoxide	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Hexachlorobenzene	mg/kg	0.05	-	-	-	<0.05	<0.05	0
	Methoxychlor	mg/kg	0.05	-	-	-	<0.05	<0.05	0
Organophosphorous Pesticides	Chlorpyrifos	mg/kg	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	-	-	-
	Diazinon	mg/kg	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	-	-	-
	Dichlorvos	mg/kg	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	-	-	-
	Ethion	mg/kg	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	-	-	-
	Fenthion	mg/kg	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	-	-	-
	Malathion	mg/kg	0.5	<0.5	<0.5	0	-	-	-
	Mevinphos (Phosdrin)	mg/kg	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	-	-	-
	Parathion	mg/kg	0.5	<0.5	<0.5	0	-	-	-
	Ronnel	mg/kg	0.5 (Primary): 0.2 (Interlab)	<0.5	<0.5	0	-	-	-
	Stirophos	mg/kg	0.5	<0.5	<0.5	0	-	-	-
PAH	Acenaphthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Acenaphthylene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Benz(a)anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Benzo(a)pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Benzo(b)fluoranthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Benzo(g,h,i)perylene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Benzo(k)fluoranthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Chrysene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Dibenz(a,h)anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Fluoranthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Fluorene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Naphthalene	mg/kg	0.5	<0.5	<0.5	0	-	-	-
	Naphthalene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Phenanthrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	Pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
	PAHs (Sum of total)	mg/kg	0.1 (Primary): 0.5 (Interlab)	<0.1	<0.1	0	-	-	-
TPH	TPH C6 - C9	mg/kg	20	<20.0	<20.0	0	-	-	-
	TPH C10 - C14	mg/kg	20	<20.0	<20.0	0	-	-	-
	TPH C15 - C28	mg/kg	50	<50.0	<50.0	0	-	-	-
	TPH C29 - C36	mg/kg	50	<50.0	<50.0	0	-	-	-
TRH	TRH C6 - C10	mg/kg	20	<20.0	<20.0	0	-	-	-
	TRH C6 - C10 minus BTEX	mg/kg	20	<20.0	<20.0	0	-	-	-
	TRH >C10 - C16	mg/kg	20 (Primary): 50 (Interlab)	<20.0	<20.0	0	-	-	-
	TRH >C16 - C34	mg/kg	50 (Primary): 100 (Interlab)	<50.0	<50.0	0	-	-	-
	TRH >C34 - C40	mg/kg	50 (Primary): 100 (Interlab)	<50.0	<50.0	0	-	-	-
	TRH >C10 - C40 (Sum of total)	mg/kg	50	<50.0	<50.0	0	-	-	-

*RPDs have only been considered where a concentration is greater than 0 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (0-10 x EQL);
50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories.
Any methods in the row header relate to those used in the primary laboratory

Beveridge Williams

Table 2
QA/QC Samples
(Duplicate and Split Samples)

SDG	12-30210	Interlab_D		12-21711	Interlab_D	
Field ID	0207-SS01	0207-2201A	**RPD**	0805-SS01	0805-SS01A	**RPD**
Sampled Date	2/07/2012	2/07/2012		8/05/2012	8/05/2012	
Chem Group	**ChemName**	**Units**	**EQL**						
BTEX	Benzene	mg/kg	0.5 (Primary): 0.05 (Interlab)	-	-	-	<0.5	<0.05	0
	Toluene	mg/kg	0.5 (Primary): 0.05 (Interlab)	-	-	-	<0.5	<0.05	0
	Ethylbenzene	mg/kg	0.5 (Primary): 0.05 (Interlab)	-	-	-	<0.5	<0.05	0
	Xylene Total	mg/kg	1 (Primary): 0.15 (Interlab)	-	-	-	<1.0	<0.15	0
	Xylene (m & p)	mg/kg	1 (Primary): 0.1 (Interlab)	-	-	-	<1.0	<0.1	0
	Xylene (o)	mg/kg	0.5 (Primary): 0.05 (Interlab)	-	-	-	<0.5	<0.05	0
	BTEX (Sum of total)	mg/kg	1	-	-	-	<1.0	-	-
Heavy Metals	Antimony	mg/kg	5	-	-	-	<5.0	-	-
	Arsenic	mg/kg	5 (Primary): 2 (Interlab)	-	-	-	33.0	43.0	26
	Barium	mg/kg	5	-	-	-	27.0	-	-
	Beryllium	mg/kg	5	-	-	-	<5.0	-	-
	Boron	mg/kg	10	-	-	-	<10.0	-	-
	Cadmium	mg/kg	0.2 (Primary): 0.4 (Interlab)	-	-	-	**0.2**	**0.7**	**111**
	Chromium (III+VI)	mg/kg	5	-	-	-	35.0	50.0	35
	Cobalt	mg/kg	5	-	-	-	<5.0	-	-
	Copper	mg/kg	5	-	-	-	52.0	71.0	31
	Lead	mg/kg	5	-	-	-	7.0	7.8	11
	Manganese	mg/kg	5	-	-	-	150.0	-	-
	Mercury	mg/kg	0.05 (Primary): 0.1 (Interlab)	-	-	-	**<0.05**	**0.3**	**143**
	Molybdenum	mg/kg	5	-	-	-	<5.0	-	-
	Nickel	mg/kg	5	-	-	-	9.0	11.0	20
	Selenium	mg/kg	3	-	-	-	<3.0	-	-
	Silver	mg/kg	5	-	-	-	<5.0	-	-
	Tin	mg/kg	5	-	-	-	<5.0	-	-
	Vanadium	mg/kg	5	-	-	-	73.0	-	-
	Zinc	mg/kg	5	-	-	-	79.0	98.0	21
Organochlorine Pesticides	4,4-DDE	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	a-BHC	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Aldrin	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	b-BHC	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Chlordane (cis)	mg/kg	0.05	<0.05	-	-	-	-	-
	Chlordane (trans)	mg/kg	0.05	<0.05	-	-	-	-	-
	d-BHC	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	DDD	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	DDT	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Dieldrin	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Endosulfan I	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Endosulfan II	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Endosulfan sulphate	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Endrin	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Endrin aldehyde	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Endrin ketone	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	g-BHC (Lindane)	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Heptachlor	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Heptachlor epoxide	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Hexachlorobenzene	mg/kg	0.05	<0.05	<0.05	0	-	-	-
	Methoxychlor	mg/kg	0.05	<0.05	<0.05	0	-	-	-
Organophosphorous Pesticides	Chlorpyrifos	mg/kg	0.5 (Primary): 0.2 (Interlab)	-	-	-	<0.5	<0.2	0
	Diazinon	mg/kg	0.5 (Primary): 0.2 (Interlab)	-	-	-	<0.5	<0.2	0
	Dichlorvos	mg/kg	0.5 (Primary): 0.2 (Interlab)	-	-	-	<0.5	<0.2	0
	Ethion	mg/kg	0.5 (Primary): 0.2 (Interlab)	-	-	-	<0.5	<0.2	0
	Fenthion	mg/kg	0.5 (Primary): 0.2 (Interlab)	-	-	-	<0.5	<0.2	0
	Malathion	mg/kg	0.5	-	-	-	<0.5	-	-
	Mevinphos (Phosdrin)	mg/kg	0.5 (Primary): 0.2 (Interlab)	-	-	-	<0.5	<0.2	0
	Parathion	mg/kg	0.5	-	-	-	<0.5	-	-
	Ronnel	mg/kg	0.5 (Primary): 0.2 (Interlab)	-	-	-	<0.5	<0.2	0
	Stirophos	mg/kg	0.5	-	-	-	<0.5	-	-
PAH	Acenaphthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Acenaphthylene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Benz(a)anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Benzo(a)pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Benzo(b)fluoranthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Benzo(g,h,i)perylene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Benzo(k)fluoranthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Chrysene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Dibenz(a,h)anthracene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Fluoranthene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Fluorene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Indeno(1,2,3-c,d)pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Naphthalene	mg/kg	0.5	-	-	-	<0.5	<0.5	0
	Naphthalene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Phenanthrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	Pyrene	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
	PAHs (Sum of total)	mg/kg	0.1 (Primary): 0.5 (Interlab)	-	-	-	<0.1	<0.5	0
TPH	TPH C6 - C9	mg/kg	20	-	-	-	<20.0	<20.0	0
	TPH C10 - C14	mg/kg	20	-	-	-	<20.0	<20.0	0
	TPH C15 - C28	mg/kg	50	-	-	-	<50.0	<50.0	0
	TPH C29 - C36	mg/kg	50	-	-	-	<50.0	<50.0	0
TRH	TRH C6 - C10	mg/kg	20	-	-	-	<20.0	<20.0	0
	TRH C6 - C10 minus BTEX	mg/kg	20	-	-	-	<20.0	<20.0	0
	TRH >C10 - C16	mg/kg	20 (Primary): 50 (Interlab)	-	-	-	<20.0	<50.0	0
	TRH >C16 - C34	mg/kg	50 (Primary): 100 (Interlab)	-	-	-	<50.0	<100.0	0
	TRH >C34 - C40	mg/kg	50 (Primary): 100 (Interlab)	-	-	-	<50.0	<100.0	0
	TRH >C10 - C40 (Sum of total)	mg/kg	50	-	-	-	<50.0	-	-

*RPDs have only been considered where a concentration is greater than 0 times the EQL.
**High RPDs are in bold (Acceptable RPDs for each EQL multiplier range are: 50 (0-10 x EQL);
50 (10-30 x EQL); 50 (> 30 x EQL))
***Interlab Duplicates are matched on a per compound basis as methods vary between laborat
Any methods in the row header relate to those used in the primary laboratory

Table 3
QA/QC Samples
(Rinsate Samples)

Beveridge Williams

SDG	12-21711	12-30210
Field ID	0805-R1	0207-R1
Sampled Date	8/05/2012	2/07/2012
Sample Type	Rinsate	Rinsate

Chem Group	ChemName	Units	EQL		
BTEX	Benzene	mg/L	0.001	<0.001	-
	Toluene	mg/L	0.001	<0.001	-
	Ethylbenzene	mg/L	0.001	<0.001	-
	Xylene Total	mg/L	0.002	<0.002	-
	Xylene (m & p)	mg/L	0.002	<0.002	-
	Xylene (o)	mg/L	0.001	<0.001	-
	BTEX (Sum of total)	mg/L	0.002	<0.002	-
					-
Heavy Metals	Antimony	mg/L	0.001	<0.001	-
	Arsenic	mg/L	0.001	<0.001	-
	Barium	mg/L	0.001	<0.001	-
	Beryllium	mg/L	0.001	<0.001	-
	Boron	mg/L	0.02	<0.02	-
	Cadmium	mg/L	0.0002	<0.0002	-
	Chromium (III+VI)	mg/L	0.001	<0.001	-
	Cobalt	mg/L	0.001	<0.001	-
	Copper	mg/L	0.001	<0.001	-
	Lead	mg/L	0.001	<0.001	-
	Manganese	mg/L	0.001	<0.001	-
	Mercury	mg/L	0.0001	<0.0001	-
	Molybdenum	mg/L	0.001	<0.001	-
	Nickel	mg/L	0.001	<0.001	-
	Selenium	mg/L	0.001	<0.001	-
	Silver	mg/L	0.001	<0.001	-
	Tin	mg/L	0.001	**0.005**	-
	Vanadium	mg/L	0.001	<0.001	-
	Zinc	mg/L	0.001	<0.001	-
Organochlorine Pesticides	4,4-DDE	mg/L	0.001	-	<0.001
	a-BHC	mg/L	0.001	-	<0.001
	Aldrin	mg/L	0.001	-	<0.001
	b-BHC	mg/L	0.001	-	<0.001
	Chlordane (cis)	mg/L	0.001	-	<0.001
	Chlordane (trans)	mg/L	0.001	-	<0.001
	d-BHC	mg/L	0.001	-	<0.001
	DDD	mg/L	0.001	-	<0.001
	DDT	mg/L	0.001	-	<0.001
	Dieldrin	mg/L	0.001	-	<0.001
	Endosulfan I	mg/L	0.001	-	<0.001
	Endosulfan II	mg/L	0.001	-	<0.001
	Endosulfan sulphate	mg/L	0.001	-	<0.001
	Endrin	mg/L	0.001	-	<0.001
	Endrin aldehyde	mg/L	0.001	-	<0.001
	Endrin ketone	mg/L	0.001	-	<0.001
	g-BHC (Lindane)	mg/L	0.001	-	<0.001
	Heptachlor	mg/L	0.001	-	<0.001
	Heptachlor epoxide	mg/L	0.001	-	<0.001
	Hexachlorobenzene	mg/L	0.001	-	<0.001
	Methoxychlor	mg/L	0.001	-	<0.001
Organophosphorous Pesticides	Chlorpyrifos	mg/L	0.001	<0.002	-
	Diazinon	mg/L	0.001	<0.002	-
	Dichlorvos	mg/L	0.001	<0.002	-
	Ethion	mg/L	0.001	<0.002	-
	Fenthion	mg/L	0.001	<0.002	-
	Malathion	mg/L	0.001	<0.002	-
	Mevinphos (Phosdrin)	mg/L	0.001	<0.002	-
	Parathion	mg/L	0.001	<0.002	-
	Ronnel	mg/L	0.001	<0.002	-
	Stirophos	mg/L	0.001	<0.002	-
PAH	Acenaphthene	mg/L	0.001	<0.001	-
	Acenaphthylene	mg/L	0.001	<0.001	-
	Anthracene	mg/L	0.001	<0.001	-
	Benz(a)anthracene	mg/L	0.001	<0.001	-
	Benzo(a)pyrene	mg/L	0.001	<0.001	-
	Benzo(b)fluoranthene	mg/L	0.001	<0.001	-
	Benzo(g,h,i)perylene	mg/L	0.001	<0.001	-
	Benzo(k)fluoranthene	mg/L	0.001	<0.001	-
	Chrysene	mg/L	0.001	<0.001	-
	Dibenz(a,h)anthracene	mg/L	0.001	<0.001	-
	Fluoranthene	mg/L	0.001	<0.001	-
	Fluorene	mg/L	0.001	<0.001	-
	Indeno(1,2,3-c,d)pyrene	mg/L	0.001	<0.001	-
	Naphthalene	mg/L	0.001	<0.001	-
	Phenanthrene	mg/L	0.001	<0.001	-
	Pyrene	mg/L	0.001	<0.001	-
	PAHs (Sum of total)	mg/L	0.001	<0.001	-
TPH	TPH C6 - C9	mg/L	0.1	<0.1	-
	TPH C10 - C14	mg/L	0.1	<0.3	-
	TPH C15 - C28	mg/L	0.1	<0.3	-
	TPH C29 - C36	mg/L	0.1	<0.3	-
TRH	TRH C6 - C10	mg/L	0.1	<0.1	-
	TRH C6 - C10 minus BTEX	mg/L	0.1	<0.1	-
	TRH >C10 - C16	mg/L	0.1	<0.3	-
	TRH >C16 - C34	mg/L	0.1	<0.3	-
	TRH >C34 - C40	mg/L	0.1	<0.3	-
	TRH >C10 - C40 (Sum of total)	mg/L	0.1	<0.3	-

Produced By: J.SERTORI
Checked By: B.CLAY
10/07/2012

APPENDIX F. NATA LABORATORY CERTIFICATES OF ANALYSIS

Beveridge Williams
development & environment consultants

Chain of Custody Form

Job number	1101542	Page	1 of 1
Client	Grouth Area Authority	Laboratory	ALS Water Resources Group
Project	Preliminary Site Investigation	Quote number	2011-213A
Location	PSP 53 and PSP 54 Clyde Creek, Cylde	Sampled by	A.HAYES

Sample ID	Date sampled	Matrix	No. of containers	Testing required: A-S17	A-S-Bev-W4	OPP							
0805-SS01	8/5/12	S	1	X	X	X							
0805-SS02			1	X	X	X							
0805-SS03			1	X	X	X							
0805-SS04			1	X	X	X							
0805-SS05			1	X	X	X							
0805-SS06			1	X	X	X							
0805-SS07			1	X	X	X							
0805-SS08			1	X	X	X							
0805-SS09			1	X	X	X							
0805-SS10			1	X	X	X							
0805-SS11			1	X	X	X							
0805-SS12			1	X	X	X							
0805-SS13			1	X	X	X							
0805-SS14			1	X	X	X							
0805-SS15	"	"	1	X	X	X							
0805-D1	8/5/12	S	1	X	X	X							
0805-R1	8/5/12	R	2	X	X	X							

Notes

Matrix: S = Soil GW = Groundwater W = Water R = Rinsate Soluble Heavy Metals: Ag, As, B, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Sn, V, Zn

Soil: A-S-BEV-W1 (HM/OCP) A-S-BEV-W2 (HM/PAH) A-S-BEV-W3 (HM/PAH/OCP) A-S-BEV-W4 (HM/TPH/PAH) A-S-BEV-W5 (EPA 621 w/ extra metals)

Water: A-W-BEV-W1 (EPA Table 2, TDS, pH, anions/cations, low level: PAH, OCP, TPH) A--BWANZLL (ANZECC screen, low level metals & organics)

Turnaround time 24hr ☐ 48hr ☐ 72hr ☐ Standard ☑ Comments:

Chain of Custody

From	Company	Date	Received by	Company	Date	Time
A.HAYES	Beveridge Williams	8/5/12	Guy Hill	ALS WRG	8/5/12	1515

Quality control

		Initial
Sample preservation	Appropriate sample containers used, refrigerated or chilled samples supplied to laboratory	
Sample holding times	Tests conducted within specified holding times	
Final certificates	Re-testing of results as requested. Tests conducted and reported as per CoC form.	

ALS Group
Environmental Division (Water Resources Group)

CERTIFICATE OF ANALYSIS

Batch No:	**12-21711**	*Page*	Page 1 of 26
Final Report	299810	*Laboratory*	Scoresby Laboratory
		Address	Caribbean Business Park, 22 Dalmore Drive, Scoresby, VIC 3179
Client:	**Beveridge Williams & Co Pty Ltd**	*Phone*	03 8756 8000
Contact:	**Andrew Mellett**	*Fax*	03 9763 1862
Address:	PO Box 61 MALVERN VIC 3144	Contact:	Trang Phan Client Manager Le-Trang.Phan@alsglobal.com
Client Program Ref:	**1101542**	Date Sampled:	08-May-2012
ALS Program Ref:	**BEVWILL**	Date Samples Received:	08-May-2012
PO No:	**Not Available**	*Date Issued:*	**14-May-2012**

The sample(s) referred to in this report were analysed by the following method(s):
- NATA accreditation does not cover the performance of this service

Analysis	*Method*	*Laboratory*	*Analysis*	*Method*	*Laboratory*	*Analysis*	*Method*	*Laboratory*
BTEXN	VIC-CM047	Melbourne	**MS Total Metals**	VIC-CM050 C	Melbourne	**OP**	VIC-CM044	Melbourne
PAH	VIC-CM043	Melbourne	**TRH & TPH**	VIC-CM030	Melbourne	**TRH & TPH**	VIC-CM047	Melbourne
BTEXN	VIC-CM047	Melbourne	**MS Total Metals**	VIC-CM050 C	Melbourne	**OPP**	VIC-CM044	Melbourne
PAH	VIC-CM043	Melbourne	**TRH & TPH**	VIC-CM030	Melbourne	**TRH & TPH**	VIC-CM047	Melbourne

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

NATA Accredited
Laboratory No. 992

Accredited for compliance
with ISO/IEC 17025

Signatories
These results have been electronically signed by the authorised signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11

Name	*Title*	*Name*	*Title*
Hao Zhang	**Team Leader, Organics**	**John Earl**	**Team Leader - Metals**
Kosta Christopoulos	**Chemist/Analyst**		

Batch No: 12-21711
Report Number: 299810
Client: Beveridge Williams & Co Pty Ltd
Client Program Ref: 1101542

LOR = Limit of reporting. When a reported LOR is higher than the standard LOR, this may be due to high moisture content, insufficient sample or matrix interference.
CAS Number = Chemistry Abstract Services Number. The analytical procedures in this report (including in house methods) are developed from internationally recognised procedures such as those published by USEPA, APHA and NEPM.

					Sample No.	3027250	3027251	3027252	3027253	3027254	3027255
					Client Sample ID	0805-SS01	0805-SS02	0805-SS03	0805-SS04	0805-SS05	0805-SS06
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Analysis	**Analyte**	**CAS #**	**LOR**								
BTEXN	Benzene	9072-35-9	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Toluene	108-88-3	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Ethyl Benzene	100-41-4	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Xylene - m&p	179601-23-1	<1	mg/kg		<1	<1	<1	<1	<1	<1
BTEXN	Xylene - O	95-47-6	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Naphthalene	91-20-3	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Total Xylenes	1330-20-7	<1	mg/kg		<1	<1	<1	<1	<1	<1
BTEXN	BTEX (Sum)	BTEX	<1	mg/kg		<1	<1	<1	<1	<1	<1
Analysis	**Analyte**	**CAS #**	**LOR**								
OP	Chlorpyrifos	2921-88-2	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Diazinon	333-41-5	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Dichlorvos	62-73-7	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Ethion	563-12-2	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Fenthion	55-38-9	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Malathion	121-75-5	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Mevinphos	7786-34-7	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Parathion	56-38-2	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Ronnel (Fenchlorfos)	299-84-3	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Stirofos	961-11-5	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Analysis	**Analyte**	**CAS #**	**LOR**								
PAH	Acenaphthene	83-32-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Acenaphthylene	208-96-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Anthracene	120-12-7	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benz(a)anthracene	56-55-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benzo(a)pyrene	50-32-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benzo(b)fluoranthene	205-99-2	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benzo(g,h,i)perylene	191-24-2	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benzo(k)fluoranthene	207-08-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Chrysene	218-01-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Dibenz(a,h)anthracene	53-70-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

Batch No: 12-21711
Report Number: 299810
Client: Beveridge Williams & Co Pty Ltd
Client Program Ref: 1101542

					Sample No.	3027250	3027251	3027252	3027253	3027254	3027255
					Client Sample ID	0805-SS01	0805-SS02	0805-SS03	0805-SS04	0805-SS05	0805-SS06
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PAH	Fluoranthene	206-44-0	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Fluorene	86-73-7	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Indeno(1,2,3-cd)pyrene	193-39-5	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Naphthalene	91-20-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Phenanthrene	85-01-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Pyrene	129-00-0	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Total PAH	TOTALPAH	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Analysis	Analyte	CAS #	LOR								
MS Total Metals	Antimony	7440-36-0	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Arsenic	7440-38-2	<5	mg/kg		33	<5	<5	<5	<5	7
MS Total Metals	Barium	7440-39-3	<5	mg/kg		27	<5	12	17	7	100
MS Total Metals	Beryllium	7440-41-7	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Boron	7440-42-8	<10	mg/kg		<10	<10	<10	<10	<10	<10
MS Total Metals	Cadmium	7440-43-9	<0.2	mg/kg		0.2	<0.2	<0.2	0.3	<0.2	0.7
MS Total Metals	Chromium	7440-47-3	<5	mg/kg		35	<5	<5	13	<5	16
MS Total Metals	Cobalt	7440-48-4	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Copper	7440-50-8	<5	mg/kg		52	5	<5	<5	13	22
MS Total Metals	Lead	7439-92-1	<5	mg/kg		7	<5	6	6	<5	76
MS Total Metals	Manganese	7439-96-5	<5	mg/kg		150	34	49	49	26	200
MS Total Metals	Mercury	7439-97-6	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	0.06
MS Total Metals	Molybdenum	7439-98-7	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Nickel	7440-02-0	<5	mg/kg		9	<5	<5	<5	<5	12
MS Total Metals	Selenium	7782-49-2	<3	mg/kg		<3	<3	<3	<3	<3	<3
MS Total Metals	Silver	7440-22-4	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Tin	7440-31-5	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Vanadium	7440-62-2	<5	mg/kg		73	7	9	36	7	19
MS Total Metals	Zinc	7440-66-6	<5	mg/kg		79	17	6	11	13	630
Analysis	Analyte	CAS #	LOR								
TRH & TPH	TPHC6-C9	TPHC6_C9	<20	mg/kg		<20	<20	<20	<20	<20	<20
TRH & TPH	TRHC6-C10	C6_C10	<20	mg/kg		<20	<20	<20	<20	<20	<20
TRH & TPH	TRHC6-C10 minus BTEX	F1-BTEX	<20	mg/kg		<20	<20	<20	<20	<20	<20
Analysis	Analyte	CAS #	LOR								
TRH & TPH	TPH C10-C14	TPHC10_C14	<20	mg/kg		<20	<20	<20	<20	<20	<20

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

Batch No: 12-21711
Report Number: 299810
Client: Beveridge Williams & Co Pty Ltd
Client Program Ref: 1101542

					Sample No.	3027250	3027251	3027252	3027253	3027254	3027255
					Client Sample ID	0805-SS01	0805-SS02	0805-SS03	0805-SS04	0805-SS05	0805-SS06
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
TRH & TPH	TPH C15-C28	TPHC15_C28	<50	mg/kg		<50	<50	<50	<50	92	83
TRH & TPH	TPH C29-C36	TPHC29_C36	<50	mg/kg		<50	<50	<50	<50	110	150
TRH & TPH	TRH>C10-C16	C10_C16	<20	mg/kg		<20	<20	<20	<20	<20	<20
TRH & TPH	TRH>C16-C34	C16_C34	<50	mg/kg		<50	<50	<50	<50	160	170
TRH & TPH	TRH>C34-C40	C34_C40	<50	mg/kg		<50	<50	<50	<50	84	98
TRH & TPH	Sum of TRH>C10-C40	C10_C40	<50	mg/kg		<50	<50	<50	<50	240	270

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

Batch No: 12-21711
Report Number: 299810
Client: Beveridge Williams & Co Pty Ltd
Client Program Ref: 1101542

LOR = Limit of reporting. When a reported LOR is higher than the standard LOR, this may be due to high moisture content, insufficient sample or matrix interference.
CAS Number = Chemistry Abstract Services Number. The analytical procedures in this report (including in house methods) are developed from internationally recognised procedures such as those published by USEPA, APHA and NEPM.

					Sample No.	3027256	3027257	3027258	3027259	3027260	3027261
					Client Sample ID	0805-SS07	0805-SS08	0805-SS09	0805-SS10	0805-SS11	0805-SS12
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Analysis	**Analyte**	**CAS #**	**LOR**								
BTEXN	Benzene	9072-35-9	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Toluene	108-88-3	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Ethyl Benzene	100-41-4	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Xylene - m&p	179601-23-1	<1	mg/kg		<1	<1	<1	<1	<1	<1
BTEXN	Xylene - O	95-47-6	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Naphthalene	91-20-3	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
BTEXN	Total Xylenes	1330-20-7	<1	mg/kg		<1	<1	<1	<1	<1	<1
BTEXN	BTEX (Sum)	BTEX	<1	mg/kg		<1	<1	<1	<1	<1	<1
Analysis	**Analyte**	**CAS #**	**LOR**								
OP	Chlorpyrifos	2921-88-2	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Diazinon	333-41-5	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Dichlorvos	62-73-7	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Ethion	563-12-2	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Fenthion	55-38-9	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Malathion	121-75-5	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Mevinphos	7786-34-7	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Parathion	56-38-2	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Ronnel (Fenchlorfos)	299-84-3	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
OP	Stirofos	961-11-5	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Analysis	**Analyte**	**CAS #**	**LOR**								
PAH	Acenaphthene	83-32-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Acenaphthylene	208-96-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Anthracene	120-12-7	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benz(a)anthracene	56-55-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benzo(a)pyrene	50-32-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benzo(b)fluoranthene	205-99-2	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benzo(g,h,i)perylene	191-24-2	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Benzo(k)fluoranthene	207-08-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Chrysene	218-01-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Dibenz(a,h)anthracene	53-70-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

Batch No: 12-21711
Report Number: 299810
Client: Beveridge Williams & Co Pty Ltd
Client Program Ref: 1101542

					Sample No.	3027256	3027257	3027258	3027259	3027260	3027261
					Client Sample ID	0805-SS07	0805-SS08	0805-SS09	0805-SS10	0805-SS11	0805-SS12
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
PAH	Fluoranthene	206-44-0	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Fluorene	86-73-7	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Indeno(1,2,3-cd)pyrene	193-39-5	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Naphthalene	91-20-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Phenanthrene	85-01-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Pyrene	129-00-0	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
PAH	Total PAH	TOTALPAH	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Analysis	**Analyte**	**CAS #**	**LOR**								
MS Total Metals	Antimony	7440-36-0	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Arsenic	7440-38-2	<5	mg/kg		<5	<5	<5	<5	6	9
MS Total Metals	Barium	7440-39-3	<5	mg/kg		24	54	20	18	24	11
MS Total Metals	Beryllium	7440-41-7	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Boron	7440-42-8	<10	mg/kg		<10	<10	<10	<10	<10	<10
MS Total Metals	Cadmium	7440-43-9	<0.2	mg/kg		<0.2	<0.2	<0.2	0.5	<0.2	0.2
MS Total Metals	Chromium	7440-47-3	<5	mg/kg		13	18	9	5	18	14
MS Total Metals	Cobalt	7440-48-4	<5	mg/kg		<5	23	<5	<5	<5	<5
MS Total Metals	Copper	7440-50-8	<5	mg/kg		<5	30	<5	5	74	10
MS Total Metals	Lead	7439-92-1	<5	mg/kg		7	9	6	6	6	<5
MS Total Metals	Manganese	7439-96-5	<5	mg/kg		110	480	41	79	280	52
MS Total Metals	Mercury	7439-97-6	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MS Total Metals	Molybdenum	7439-98-7	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Nickel	7440-02-0	<5	mg/kg		<5	52	<5	<5	10	<5
MS Total Metals	Selenium	7782-49-2	<3	mg/kg		4	4	<3	<3	<3	<3
MS Total Metals	Silver	7440-22-4	<5	mg/kg		<5	<5	<5	<5	<5	<5
MS Total Metals	Tin	7440-31-5	<5	mg/kg		<5	<5	<5	<5	8	<5
MS Total Metals	Vanadium	7440-62-2	<5	mg/kg		19	25	13	10	17	36
MS Total Metals	Zinc	7440-66-6	<5	mg/kg		8	77	8	15	290	28
Analysis	**Analyte**	**CAS #**	**LOR**								
TRH & TPH	TPHC6-C9	TPHC6_C9	<20	mg/kg		<20	<20	<20	<20	<20	<20
TRH & TPH	TRHC6-C10	C6_C10	<20	mg/kg		<20	<20	<20	<20	<20	<20
TRH & TPH	TRHC6-C10 minus BTEX	F1-BTEX	<20	mg/kg		<20	<20	<20	<20	<20	<20
Analysis	**Analyte**	**CAS #**	**LOR**								
TRH & TPH	TPH C10-C14	TPHC10_C14	<20	mg/kg		<20	<20	<20	<20	<20	<20

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample No.	3027256	3027257	3027258	3027259	3027260	3027261
					Client Sample ID	0805-SS07	0805-SS08	0805-SS09	0805-SS10	0805-SS11	0805-SS12
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
TRH & TPH	TPH C15-C28	TPHC15_C28	<50	mg/kg		<50	61	<50	<50	<50	<50
TRH & TPH	TPH C29-C36	TPHC29_C36	<50	mg/kg		55	130	67	80	63	<50
TRH & TPH	TRH>C10-C16	C10_C16	<20	mg/kg		<20	<20	<20	<20	<20	<20
TRH & TPH	TRH>C16-C34	C16_C34	<50	mg/kg		50	150	<50	67	100	<50
TRH & TPH	TRH>C34-C40	C34_C40	<50	mg/kg		<50	110	71	52	<50	<50
TRH & TPH	Sum of TRH>C10-C40	C10_C40	<50	mg/kg		50	260	71	120	100	<50

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

Batch No: 12-21711
Report Number: 299810
Client: Beveridge Williams & Co Pty Ltd
Client Program Ref: 1101542

LOR = Limit of reporting. When a reported LOR is higher than the standard LOR, this may be due to high moisture content, insufficient sample or matrix interference.
CAS Number = Chemistry Abstract Services Number. The analytical procedures in this report (including in house methods) are developed from internationally recognised procedures such as those published by USEPA, APHA and NEPM.

					Sample No.	3027262	3027263	3027264	3027265	3027266
					Client Sample ID	0805-SS13	0805-SS14	0805-SS15	0805-D1	0805-R1
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	WATER
Analysis	**Analyte**	**CAS #**	**LOR**							
BTEXN	Benzene	9072-35-9	<0.001	mg/L						<0.001
BTEXN	Toluene	108-88-3	<0.001	mg/L						<0.001
BTEXN	Ethyl Benzene	100-41-4	<0.001	mg/L						<0.001
BTEXN	Xylene - m & p	179601-23-1	<0.002	mg/L						<0.002
BTEXN	Xylene - o	95-47-6	<0.001	mg/L						<0.001
BTEXN	Naphthalene	91-20-3	<0.001	mg/L						<0.001
BTEXN	Total Xylenes	1330-20-7	<0.002	mg/L						<0.002
BTEXN	BTEX (Sum)	BTEX	<0.002	mg/L						<0.002
Analysis	**Analyte**	**CAS #**	**LOR**							
BTEXN	Benzene	9072-35-9	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
BTEXN	Toluene	108-88-3	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
BTEXN	Ethyl Benzene	100-41-4	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
BTEXN	Xylene - m&p	179601-23-1	<1	mg/kg		<1	<1	<1	<1	
BTEXN	Xylene - O	95-47-6	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
BTEXN	Naphthalene	91-20-3	<0.5	mg/kg		<0.5	<0.5	<0.5	<0.5	
BTEXN	Total Xylenes	1330-20-7	<1	mg/kg		<1	<1	<1	<1	
BTEXN	BTEX (Sum)	BTEX	<1	mg/kg		<1	<1	<1	<1	
Analysis	**Analyte**	**CAS #**	**LOR**							
MS Total Metals	Antimony	7440-36-0	<0.001	mg/L						<0.001
MS Total Metals	Arsenic	7440-38-2	<0.001	mg/L						<0.001
MS Total Metals	Barium	7440-39-3	<0.001	mg/L						<0.001
MS Total Metals	Beryllium	7440-41-7	<0.001	mg/L						<0.001
MS Total Metals	Boron	7440-42-8	<0.02	mg/L						<0.02
MS Total Metals	Cadmium	7440-43-9	<0.0002	mg/L						<0.0002
MS Total Metals	Chromium	7440-47-3	<0.001	mg/L						<0.001
MS Total Metals	Cobalt	7440-48-4	<0.001	mg/L						<0.001
MS Total Metals	Copper	7440-50-8	<0.001	mg/L						<0.001
MS Total Metals	Lead	7439-92-1	<0.001	mg/L						<0.001
MS Total Metals	Manganese	7439-96-5	<0.001	mg/L						<0.001
MS Total Metals	Mercury	7439-97-6	<0.0001	mg/L						<0.0001

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample No.	3027262	3027263	3027264	3027265	3027266
					Client Sample ID	0805-SS13	0805-SS14	0805-SS15	0805-D1	0805-R1
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	WATER
MS Total Metals	Molybdenum	7439-98-7	<0.001	mg/L						<0.001
MS Total Metals	Nickel	7440-02-0	<0.001	mg/L						<0.001
MS Total Metals	Selenium	7782-49-2	<0.001	mg/L						<0.001
MS Total Metals	Silver	7440-22-4	<0.001	mg/L						<0.001
MS Total Metals	Tin	7440-31-5	<0.001	mg/L						0.005
MS Total Metals	Vanadium	7440-62-2	<0.001	mg/L						<0.001
MS Total Metals	Zinc	7440-66-6	<0.001	mg/L						<0.001
Analysis	**Analyte**	**CAS #**	**LOR**							
OPP	Chlorpyrifos	2921-88-2	<0.001	mg/L						<0.002
OPP	Diazinon	333-41-5	<0.001	mg/L						<0.002
OPP	Dichlorvos	62-73-7	<0.001	mg/L						<0.002
OPP	Ethion	563-12-2	<0.001	mg/L						<0.002
OPP	Fenthion	55-38-9	<0.001	mg/L						<0.002
OPP	Malathion	121-75-5	<0.001	mg/L						<0.002
OPP	Mevinphos	7786-34-7	<0.001	mg/L						<0.002
OPP	Parathion	56-38-2	<0.001	mg/L						<0.002
OPP	Ronnel (Fenchlorfos)	299-84-3	<0.001	mg/L						<0.002
OPP	Stirofos	961-11-5	<0.001	mg/L						<0.002
Analysis	**Analyte**	**CAS #**	**LOR**							
OP	Chlorpyrifos	2921-88-2	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Diazinon	333-41-5	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Dichlorvos	62-73-7	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Ethion	563-12-2	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Fenthion	55-38-9	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Malathion	121-75-5	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Mevinphos	7786-34-7	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Parathion	56-38-2	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Ronnel (Fenchlorfos)	299-84-3	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
OP	Stirofos	961-11-5	<0.5	mg/kg	<0.5	<0.5	<0.5	<0.5		
Analysis	**Analyte**	**CAS #**	**LOR**							
PAH	Naphthalene	91-20-3	<0.001	mg/L						<0.001
PAH	Acenapthylene	208-96-8	<0.001	mg/L						<0.001
PAH	Acenaphthene	83-32-9	<0.001	mg/L						<0.001

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample No.	3027262	3027263	3027264	3027265	3027266
					Client Sample ID	0805-SS13	0805-SS14	0805-SS15	0805-D1	0805-R1
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	WATER
PAH	Fluorene	86-73-7	<0.001	mg/L						<0.001
PAH	Phenanthrene	85-01-8	<0.001	mg/L						<0.001
PAH	Anthracene	120-12-7	<0.001	mg/L						<0.001
PAH	Fluoranthene	206-44-0	<0.001	mg/L						<0.001
PAH	Pyrene	129-00-0	<0.001	mg/L						<0.001
PAH	Benz(a)anthracene	56-55-3	<0.001	mg/L						<0.001
PAH	Chrysene	218-01-9	<0.001	mg/L						<0.001
PAH	Benzo(b)fluoranthene	205-99-2	<0.001	mg/L						<0.001
PAH	Benzo(k)fluoroanthene	207-08-9	<0.001	mg/L						<0.001
PAH	Benzo(a)pyrene	50-32-8	<0.001	mg/L						<0.001
PAH	Dibenz(a,h)anthracene	53-70-3	<0.001	mg/L						<0.001
PAH	Benzo(g,h,i)perylene	191-24-2	<0.001	mg/L						<0.001
PAH	Indeno(1,2,3-cd)pyrene	193-39-5	<0.001	mg/L						<0.001
PAH	Total PAH	TOTALPAH	<0.001	mg/L						<0.001
Analysis	**Analyte**	**CAS #**	**LOR**							
PAH	Acenaphthene	83-32-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Acenaphthylene	208-96-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Anthracene	120-12-7	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Benz(a)anthracene	56-55-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Benzo(a)pyrene	50-32-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Benzo(b)fluoranthene	205-99-2	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Benzo(g,h,i)perylene	191-24-2	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Benzo(k)fluoranthene	207-08-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Chrysene	218-01-9	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Dibenz(a,h)anthracene	53-70-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Fluoranthene	206-44-0	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Fluorene	86-73-7	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Indeno(1,2,3-cd)pyrene	193-39-5	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Naphthalene	91-20-3	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Phenanthrene	85-01-8	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Pyrene	129-00-0	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
PAH	Total PAH	TOTALPAH	<0.1	mg/kg		<0.1	<0.1	<0.1	<0.1	
Analysis	**Analyte**	**CAS #**	**LOR**							

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample No.	3027262	3027263	3027264	3027265	3027266
					Client Sample ID	0805-SS13	0805-SS14	0805-SS15	0805-D1	0805-R1
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	WATER
MS Total Metals	Antimony	7440-36-0	<5	mg/kg		<5	<5	<5	<5	
MS Total Metals	Arsenic	7440-38-2	<5	mg/kg		5	<5	9	19	
MS Total Metals	Barium	7440-39-3	<5	mg/kg		43	150	18	32	
MS Total Metals	Beryllium	7440-41-7	<5	mg/kg		<5	<5	<5	<5	
MS Total Metals	Boron	7440-42-8	<10	mg/kg		<10	<10	<10	<10	
MS Total Metals	Cadmium	7440-43-9	<0.2	mg/kg		0.4	<0.2	<0.2	<0.2	
MS Total Metals	Chromium	7440-47-3	<5	mg/kg		40	67	51	31	
MS Total Metals	Cobalt	7440-48-4	<5	mg/kg		9	24	9	<5	
MS Total Metals	Copper	7440-50-8	<5	mg/kg		38	37	12	49	
MS Total Metals	Lead	7439-92-1	<5	mg/kg		13	6	12	6	
MS Total Metals	Manganese	7439-96-5	<5	mg/kg		280	410	53	180	
MS Total Metals	Mercury	7439-97-6	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	
MS Total Metals	Molybdenum	7439-98-7	<5	mg/kg		<5	<5	<5	<5	
MS Total Metals	Nickel	7440-02-0	<5	mg/kg		17	89	18	9	
MS Total Metals	Selenium	7782-49-2	<3	mg/kg		4	6	4	<3	
MS Total Metals	Silver	7440-22-4	<5	mg/kg		<5	<5	<5	<5	
MS Total Metals	Tin	7440-31-5	<5	mg/kg		<5	<5	<5	<5	
MS Total Metals	Vanadium	7440-62-2	<5	mg/kg		51	71	100	56	
MS Total Metals	Zinc	7440-66-6	<5	mg/kg		96	47	34	81	
Analysis	**Analyte**	**CAS #**	**LOR**							
TRH & TPH	TPH C6-C9	TPHC6_C9	<0.1	mg/L						<0.1
TRH & TPH	TRH C6-C10	C6_C10	<0.1	mg/L						<0.1
TRH & TPH	TRH C6-C10 minus BTEX	F1-BTEX	<0.1	mg/L						<0.1
Analysis	**Analyte**	**CAS #**	**LOR**							
TRH & TPH	TPHC6-C9	TPHC6_C9	<20	mg/kg		<20	<20	<20	<20	
TRH & TPH	TRHC6-C10	C6_C10	<20	mg/kg		<20	<20	<20	<20	
TRH & TPH	TRHC6-C10 minus BTEX	F1-BTEX	<20	mg/kg		<20	<20	<20	<20	
Analysis	**Analyte**	**CAS #**	**LOR**							
TRH & TPH	TPH C10-C14	TPHC10_C14	<0.1	mg/L						<0.3 LORR
TRH & TPH	TPH C15-C28	TPHC15_C28	<0.1	mg/L						<0.3 LORR
TRH & TPH	TPH C29-C36	TPHC29_C36	<0.1	mg/L						<0.3 LORR
TRH & TPH	TRH>C10-C16	C10_C16	<0.1	mg/L						<0.3 LORR
TRH & TPH	TRH>C16-C34	C16_C34	<0.1	mg/L						<0.3 LORR

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample No.	3027262	3027263	3027264	3027265	3027266
					Client Sample ID	0805-SS13	0805-SS14	0805-SS15	0805-D1	0805-R1
					Sample Date	08/05/12	08/05/12	08/05/12	08/05/12	08/05/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	WATER
TRH & TPH	TRH>C34-C40	C34_C40	<0.1	mg/L						<0.3 LORR
TRH & TPH	Sum of TRH>C10-C40	C10_C40	<0.1	mg/L						<0.3 LORR
Analysis	**Analyte**	**CAS #**	**LOR**							
TRH & TPH	TPH C10-C14	TPHC10_C14	<20	mg/kg		<20	<20	<20	<20	
TRH & TPH	TPH C15-C28	TPHC15_C28	<50	mg/kg		<50	<50	<50	<50	
TRH & TPH	TPH C29-C36	TPHC29_C36	<50	mg/kg		<50	<50	57	<50	
TRH & TPH	TRH>C10-C16	C10_C16	<20	mg/kg		<20	<20	<20	<20	
TRH & TPH	TRH>C16-C34	C16_C34	<50	mg/kg		<50	<50	54	<50	
TRH & TPH	TRH>C34-C40	C34_C40	<50	mg/kg		<50	<50	<50	<50	
TRH & TPH	Sum of TRH>C10-C40	C10_C40	<50	mg/kg		<50	<50	54	<50	

LORR Limit of Reporting has been raised due to high moisture content, insufficient sample or matrix interference.

QUALITY CONTROL - BLANKS

QC Blanks are an 'analyte free' matrix in which all applicable reagents have been added in the same proportion as in standard samples and are an internal monitor for laboratory contamination.

					Value
Lab Sample ID	Client Sample ID	Analysis	Analyte		
3031030	QC - Blank	MS Total Metals	Antimony	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Arsenic	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Barium	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Beryllium	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Boron	mg/L	<0.02
3031030	QC - Blank	MS Total Metals	Cadmium	mg/L	<0.0002
3031030	QC - Blank	MS Total Metals	Chromium	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Cobalt	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Copper	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Lead	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Manganese	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Mercury	mg/L	<0.0001
3031030	QC - Blank	MS Total Metals	Molybdenum	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Nickel	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Selenium	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Silver	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Tin	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Vanadium	mg/L	<0.001
3031030	QC - Blank	MS Total Metals	Zinc	mg/L	<0.001
Lab Sample ID	Client Sample ID	Analysis	Analyte		
3030325	QC - Blank	MS Total Metals	Antimony	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Arsenic	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Barium	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Beryllium	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Boron	mg/kg	<10
3030325	QC - Blank	MS Total Metals	Cadmium	mg/kg	<0.2
3030325	QC - Blank	MS Total Metals	Chromium	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Cobalt	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Copper	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Lead	mg/kg	<5

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Value
3030325	QC - Blank	MS Total Metals	Manganese	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Mercury	mg/kg	<0.05
3030325	QC - Blank	MS Total Metals	Molybdenum	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Nickel	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Selenium	mg/kg	<3
3030325	QC - Blank	MS Total Metals	Silver	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Tin	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Vanadium	mg/kg	<5
3030325	QC - Blank	MS Total Metals	Zinc	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Antimony	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Arsenic	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Barium	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Beryllium	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Boron	mg/kg	<10
3030332	QC - Blank	MS Total Metals	Cadmium	mg/kg	<0.2
3030332	QC - Blank	MS Total Metals	Chromium	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Cobalt	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Copper	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Lead	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Manganese	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Mercury	mg/kg	<0.05
3030332	QC - Blank	MS Total Metals	Molybdenum	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Nickel	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Selenium	mg/kg	<3
3030332	QC - Blank	MS Total Metals	Silver	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Tin	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Vanadium	mg/kg	<5
3030332	QC - Blank	MS Total Metals	Zinc	mg/kg	<5
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3032739	QC - Blank	BTEXN	Benzene	mg/L	<0.001
3032739	QC - Blank	BTEXN	Toluene	mg/L	<0.001
3032739	QC - Blank	BTEXN	Ethyl Benzene	mg/L	<0.001
3032739	QC - Blank	BTEXN	Xylene - m & p	mg/L	<0.002
3032739	QC - Blank	BTEXN	Xylene - o	mg/L	<0.001
3032739	QC - Blank	BTEXN	Naphthalene	mg/L	<0.001
3032739	QC - Blank	BTEXN	Total Xylenes	mg/L	<0.002

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Value
3032739	QC - Blank	BTEXN	BTEX (Sum)	mg/L	<0.002
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3031319	QC - Blank	BTEXN	Benzene	mg/kg	<0.5
3031319	QC - Blank	BTEXN	Toluene	mg/kg	<0.5
3031319	QC - Blank	BTEXN	Ethyl Benzene	mg/kg	<0.5
3031319	QC - Blank	BTEXN	Xylene - m&p	mg/kg	<1
3031319	QC - Blank	BTEXN	Xylene - O	mg/kg	<0.5
3031319	QC - Blank	BTEXN	Naphthalene	mg/kg	<0.5
3031319	QC - Blank	BTEXN	Total Xylenes	mg/kg	<1
3031319	QC - Blank	BTEXN	BTEX (Sum)	mg/kg	<1
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3032784	QC - Blank	TRH & TPH	TPH C6-C9	mg/L	<0.1
3032784	QC - Blank	TRH & TPH	TRH C6-C10	mg/L	<0.1
3032784	QC - Blank	TRH & TPH	TRH C6-C10 minus BTEX	mg/L	<0.1
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3030731	QC - Blank	TRH & TPH	TPH C10-C14	mg/L	<0.1
3030731	QC - Blank	TRH & TPH	TPH C15-C28	mg/L	<0.1
3030731	QC - Blank	TRH & TPH	TPH C29-C36	mg/L	<0.1
3030731	QC - Blank	TRH & TPH	TRH>C10-C16	mg/L	<0.1
3030731	QC - Blank	TRH & TPH	TRH>C16-C34	mg/L	<0.1
3030731	QC - Blank	TRH & TPH	TRH>C34-C40	mg/L	<0.1
3030731	QC - Blank	TRH & TPH	Sum of TRH>C10-C40	mg/L	<0.1
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3031338	QC - Blank	TRH & TPH	TPHC6-C9	mg/kg	<20
3031338	QC - Blank	TRH & TPH	TRHC6-C10	mg/kg	<20
3031338	QC - Blank	TRH & TPH	TRHC6-C10 minus BTEX	mg/kg	<20
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3030740	QC - Blank	TRH & TPH	TPH C10-C14	mg/kg	<20
3030740	QC - Blank	TRH & TPH	TPH C15-C28	mg/kg	<50
3030740	QC - Blank	TRH & TPH	TPH C29-C36	mg/kg	<50
3030740	QC - Blank	TRH & TPH	TRH>C10-C16	mg/kg	<20
3030740	QC - Blank	TRH & TPH	TRH>C16-C34	mg/kg	<50
3030740	QC - Blank	TRH & TPH	TRH>C34-C40	mg/kg	<50
3030740	QC - Blank	TRH & TPH	Sum of TRH>C10-C40	mg/kg	<50
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3031091	QC - Blank	PAH	Naphthalene	mg/L	<0.001

					Value
3031091	QC - Blank	PAH	Acenapthylene	mg/L	<0.001
3031091	QC - Blank	PAH	Acenaphthene	mg/L	<0.001
3031091	QC - Blank	PAH	Fluorene	mg/L	<0.001
3031091	QC - Blank	PAH	Phenanthrene	mg/L	<0.001
3031091	QC - Blank	PAH	Anthracene	mg/L	<0.001
3031091	QC - Blank	PAH	Fluoranthene	mg/L	<0.001
3031091	QC - Blank	PAH	Pyrene	mg/L	<0.001
3031091	QC - Blank	PAH	Benz(a)anthracene	mg/L	<0.001
3031091	QC - Blank	PAH	Chrysene	mg/L	<0.001
3031091	QC - Blank	PAH	Benzo(b)fluoranthene	mg/L	<0.001
3031091	QC - Blank	PAH	Benzo(k)fluoroanthene	mg/L	<0.001
3031091	QC - Blank	PAH	Benzo(a)pyrene	mg/L	<0.001
3031091	QC - Blank	PAH	Dibenz(a,h)anthracene	mg/L	<0.001
3031091	QC - Blank	PAH	Benzo(g,h,i)perylene	mg/L	<0.001
3031091	QC - Blank	PAH	Indeno(1,2,3-cd)pyrene	mg/L	<0.001
3031091	QC - Blank	PAH	Total PAH	mg/L	<0.001
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3030313	QC - Blank	PAH	Acenaphthene	mg/kg	<0.1
3030313	QC - Blank	PAH	Acenaphthylene	mg/kg	<0.1
3030313	QC - Blank	PAH	Anthracene	mg/kg	<0.1
3030313	QC - Blank	PAH	Benz(a)anthracene	mg/kg	<0.1
3030313	QC - Blank	PAH	Benzo(a)pyrene	mg/kg	<0.1
3030313	QC - Blank	PAH	Benzo(b)fluoranthene	mg/kg	<0.1
3030313	QC - Blank	PAH	Benzo(g,h,i)perylene	mg/kg	<0.1
3030313	QC - Blank	PAH	Benzo(k)fluoranthene	mg/kg	<0.1
3030313	QC - Blank	PAH	Chrysene	mg/kg	<0.1
3030313	QC - Blank	PAH	Dibenz(a,h)anthracene	mg/kg	<0.1
3030313	QC - Blank	PAH	Fluoranthene	mg/kg	<0.1
3030313	QC - Blank	PAH	Fluorene	mg/kg	<0.1
3030313	QC - Blank	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	<0.1
3030313	QC - Blank	PAH	Naphthalene	mg/kg	<0.1
3030313	QC - Blank	PAH	Phenanthrene	mg/kg	<0.1
3030313	QC - Blank	PAH	Pyrene	mg/kg	<0.1
3030313	QC - Blank	PAH	Total PAH	mg/kg	<0.1
3030669	QC - Blank	PAH	Acenaphthene	mg/kg	<0.1
3030669	QC - Blank	PAH	Acenaphthylene	mg/kg	<0.1

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Value
3030669	QC - Blank	PAH	Anthracene	mg/kg	<0.1
3030669	QC - Blank	PAH	Benz(a)anthracene	mg/kg	<0.1
3030669	QC - Blank	PAH	Benzo(a)pyrene	mg/kg	<0.1
3030669	QC - Blank	PAH	Benzo(b)fluoranthene	mg/kg	<0.1
3030669	QC - Blank	PAH	Benzo(g,h,i)perylene	mg/kg	<0.1
3030669	QC - Blank	PAH	Benzo(k)fluoranthene	mg/kg	<0.1
3030669	QC - Blank	PAH	Chrysene	mg/kg	<0.1
3030669	QC - Blank	PAH	Dibenz(a,h)anthracene	mg/kg	<0.1
3030669	QC - Blank	PAH	Fluoranthene	mg/kg	<0.1
3030669	QC - Blank	PAH	Fluorene	mg/kg	<0.1
3030669	QC - Blank	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	<0.1
3030669	QC - Blank	PAH	Naphthalene	mg/kg	<0.1
3030669	QC - Blank	PAH	Phenanthrene	mg/kg	<0.1
3030669	QC - Blank	PAH	Pyrene	mg/kg	<0.1
3030669	QC - Blank	PAH	Total PAH	mg/kg	<0.1
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3031085	QC - Blank	OPP	Chlorpyrifos	mg/L	<0.001
3031085	QC - Blank	OPP	Diazinon	mg/L	<0.001
3031085	QC - Blank	OPP	Dichlorvos	mg/L	<0.001
3031085	QC - Blank	OPP	Ethion	mg/L	<0.001
3031085	QC - Blank	OPP	Fenthion	mg/L	<0.001
3031085	QC - Blank	OPP	Malathion	mg/L	<0.001
3031085	QC - Blank	OPP	Mevinphos	mg/L	<0.001
3031085	QC - Blank	OPP	Parathion	mg/L	<0.001
3031085	QC - Blank	OPP	Ronnel (Fenchlorfos)	mg/L	<0.001
3031085	QC - Blank	OPP	Stirofos	mg/L	<0.001
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**		
3030309	QC - Blank	OP	Chlorpyrifos	mg/kg	<0.5
3030309	QC - Blank	OP	Diazinon	mg/kg	<0.5
3030309	QC - Blank	OP	Dichlorvos	mg/kg	<0.5
3030309	QC - Blank	OP	Ethion	mg/kg	<0.5
3030309	QC - Blank	OP	Fenthion	mg/kg	<0.5
3030309	QC - Blank	OP	Malathion	mg/kg	<0.5
3030309	QC - Blank	OP	Mevinphos	mg/kg	<0.5
3030309	QC - Blank	OP	Parathion	mg/kg	<0.5
3030309	QC - Blank	OP	Ronnel (Fenchlorfos)	mg/kg	<0.5

					Value
3030309	QC - Blank	OP	Stirofos	mg/kg	<0.5
3030487	QC - Blank	OP	Chlorpyrifos	mg/kg	<0.5
3030487	QC - Blank	OP	Diazinon	mg/kg	<0.5
3030487	QC - Blank	OP	Dichlorvos	mg/kg	<0.5
3030487	QC - Blank	OP	Ethion	mg/kg	<0.5
3030487	QC - Blank	OP	Fenthion	mg/kg	<0.5
3030487	QC - Blank	OP	Malathion	mg/kg	<0.5
3030487	QC - Blank	OP	Mevinphos	mg/kg	<0.5
3030487	QC - Blank	OP	Parathion	mg/kg	<0.5
3030487	QC - Blank	OP	Ronnel (Fenchlorfos)	mg/kg	<0.5
3030487	QC - Blank	OP	Stirofos	mg/kg	<0.5

QUALITY CONTROL - DUPLICATES

QC Data for duplicates is calculated on raw 'unrounded' values. Laboratory duplicates are randomly selected samples tested by the laboratory to maintain method precision and provide information on sample homogeniety.
RPD = Relative Percentage Difference for duplicate determinations. RPD's that fall outside the general acceptance criteria will be attributed to non-homogeneity of samples or results of low magnitudes.

					Sample Value	Duplicate Value	% RPD
Lab Sample ID	Client Sample ID	Analysis	Analyte				
3031031	NCP	MS Total Metals	Antimony	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Arsenic	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Barium	mg/L	0.020	0.020	1.3
3031031	NCP	MS Total Metals	Beryllium	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Boron	mg/L	<0.02	<0.02	0
3031031	NCP	MS Total Metals	Cadmium	mg/L	<0.0002	<0.0002	0
3031031	NCP	MS Total Metals	Chromium	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Cobalt	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Copper	mg/L	0.013	0.013	1.5
3031031	NCP	MS Total Metals	Lead	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Manganese	mg/L	0.004	0.004	6.7
3031031	NCP	MS Total Metals	Mercury	mg/L	<0.0001	<0.0001	0
3031031	NCP	MS Total Metals	Molybdenum	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Nickel	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Selenium	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Silver	mg/L	<0.001	<0.001	0

					Sample Value	Duplicate Value	% RPD
3031031	NCP	MS Total Metals	Tin	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Vanadium	mg/L	<0.001	<0.001	0
3031031	NCP	MS Total Metals	Zinc	mg/L	0.002	0.002	8.5
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030328	0805-SS01	MS Total Metals	Antimony	mg/kg	<5	<5	0
3030328	0805-SS01	MS Total Metals	Arsenic	mg/kg	33	38	13.2
3030328	0805-SS01	MS Total Metals	Barium	mg/kg	27	29	5.5
3030328	0805-SS01	MS Total Metals	Beryllium	mg/kg	<5	<5	0
3030328	0805-SS01	MS Total Metals	Boron	mg/kg	<10	<10	0
3030328	0805-SS01	MS Total Metals	Cadmium	mg/kg	0.2	0.3	6.5
3030328	0805-SS01	MS Total Metals	Chromium	mg/kg	35	38	8.2
3030328	0805-SS01	MS Total Metals	Cobalt	mg/kg	<5	<5	0
3030328	0805-SS01	MS Total Metals	Copper	mg/kg	52	55	6.6
3030328	0805-SS01	MS Total Metals	Lead	mg/kg	7	8	12.6
3030328	0805-SS01	MS Total Metals	Manganese	mg/kg	150	170	9.5
3030328	0805-SS01	MS Total Metals	Mercury	mg/kg	<0.05	<0.05	0
3030328	0805-SS01	MS Total Metals	Molybdenum	mg/kg	<5	<5	0
3030328	0805-SS01	MS Total Metals	Nickel	mg/kg	9	9	1.9
3030328	0805-SS01	MS Total Metals	Selenium	mg/kg	<3	<3	0
3030328	0805-SS01	MS Total Metals	Silver	mg/kg	<5	<5	0
3030328	0805-SS01	MS Total Metals	Tin	mg/kg	<5	<5	0
3030328	0805-SS01	MS Total Metals	Vanadium	mg/kg	73	76	3.6
3030328	0805-SS01	MS Total Metals	Zinc	mg/kg	79	80	2.3
3030333	NCP	MS Total Metals	Antimony	mg/kg	<5	<5	0
3030333	NCP	MS Total Metals	Barium	mg/kg	25	28	13.4
3030333	NCP	MS Total Metals	Beryllium	mg/kg	<5	<5	0
3030333	NCP	MS Total Metals	Boron	mg/kg	<10	<10	0
3030333	NCP	MS Total Metals	Cadmium	mg/kg	<0.2	<0.2	0
3030333	NCP	MS Total Metals	Chromium	mg/kg	31	31	0.4
3030333	NCP	MS Total Metals	Copper	mg/kg	<5	<5	0
3030333	NCP	MS Total Metals	Lead	mg/kg	18	17	7.1
3030333	NCP	MS Total Metals	Mercury	mg/kg	0.07	0.07	6.2
3030333	NCP	MS Total Metals	Molybdenum	mg/kg	<5	<5	0
3030333	NCP	MS Total Metals	Nickel	mg/kg	14	11	19.9
3030333	NCP	MS Total Metals	Selenium	mg/kg	6	5	17.4
3030333	NCP	MS Total Metals	Silver	mg/kg	<5	<5	0

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample Value	Duplicate Value	% RPD
3030333	NCP	MS Total Metals	Tin	mg/kg	<5	<5	0
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3031310	NCP	BTEXN	Benzene	mg/kg	<0.5	<0.5	0
3031310	NCP	BTEXN	Toluene	mg/kg	<0.5	<0.5	0
3031310	NCP	BTEXN	Ethyl Benzene	mg/kg	<0.5	<0.5	0
3031310	NCP	BTEXN	Xylene - m&p	mg/kg	<1	<1	0
3031310	NCP	BTEXN	Xylene - O	mg/kg	<0.5	<0.5	0
3031310	NCP	BTEXN	Naphthalene	mg/kg	<0.5	<0.5	0
3031310	NCP	BTEXN	Total Xylenes	mg/kg	<1	<1	0
3031310	NCP	BTEXN	BTEX (Sum)	mg/kg	<1	<1	0
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3032781	NCP	TRH & TPH	TPH C6-C9	mg/L	<0.1	<0.1	0
3032781	NCP	TRH & TPH	TRH C6-C10	mg/L	<0.1	<0.1	0
3032781	NCP	TRH & TPH	TRH C6-C10 minus BTEX	mg/L	<0.1	<0.1	0
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030730	NCP	TRH & TPH	TPH C10-C14	mg/L	<0.1	<0.1	0
3030730	NCP	TRH & TPH	TPH C15-C28	mg/L	<0.1	<0.1	0
3030730	NCP	TRH & TPH	TPH C29-C36	mg/L	<0.1	<0.1	0
3030730	NCP	TRH & TPH	TRH>C10-C16	mg/L	<0.1	<0.1	0
3030730	NCP	TRH & TPH	TRH>C16-C34	mg/L	<0.1	<0.1	0
3030730	NCP	TRH & TPH	TRH>C34-C40	mg/L	<0.1	<0.1	0
3030730	NCP	TRH & TPH	Sum of TRH>C10-C40	mg/L	<0.1	<0.1	0
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3031333	NCP	TRH & TPH	TPHC6-C9	mg/kg	<20	<20	0
3031333	NCP	TRH & TPH	TRHC6-C10	mg/kg	<20	<20	0
3031333	NCP	TRH & TPH	TRHC6-C10 minus BTEX	mg/kg	<20	<20	0
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030732	0805-SS03	TRH & TPH	TPH C10-C14	mg/kg	<20	<20	0
3030732	0805-SS03	TRH & TPH	TPH C15-C28	mg/kg	<50	<50	0
3030732	0805-SS03	TRH & TPH	TPH C29-C36	mg/kg	<50	<50	0
3030732	0805-SS03	TRH & TPH	TRH>C10-C16	mg/kg	<20	<20	0
3030732	0805-SS03	TRH & TPH	TRH>C16-C34	mg/kg	<50	<50	0
3030732	0805-SS03	TRH & TPH	TRH>C34-C40	mg/kg	<50	<50	0
3030732	0805-SS03	TRH & TPH	Sum of TRH>C10-C40	mg/kg	<50	<50	0
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030310	0805-D1	PAH	Acenaphthene	mg/kg	<0.1	<0.1	0

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample Value	Duplicate Value	% RPD
3030310	0805-D1	PAH	Acenaphthylene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Anthracene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Benz(a)anthracene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Benzo(a)pyrene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Benzo(b)fluoranthene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Benzo(k)fluoranthene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Chrysene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Dibenz(a,h)anthracene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Fluoranthene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Fluorene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Naphthalene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Phenanthrene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Pyrene	mg/kg	<0.1	<0.1	0
3030310	0805-D1	PAH	Total PAH	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Acenaphthene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Acenaphthylene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Anthracene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Benz(a)anthracene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Benzo(a)pyrene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Benzo(b)fluoranthene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Benzo(k)fluoranthene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Chrysene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Dibenz(a,h)anthracene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Fluoranthene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Fluorene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Naphthalene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Phenanthrene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Pyrene	mg/kg	<0.1	<0.1	0
3030665	0805-SS03	PAH	Total PAH	mg/kg	<0.1	<0.1	0
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030307	0805-D1	OP	Chlorpyrifos	mg/kg	<0.5	<0.5	0
3030307	0805-D1	OP	Diazinon	mg/kg	<0.5	<0.5	0

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample Value	Duplicate Value	% RPD
3030307	0805-D1	OP	Dichlorvos	mg/kg	<0.5	<0.5	0
3030307	0805-D1	OP	Ethion	mg/kg	<0.5	<0.5	0
3030307	0805-D1	OP	Fenthion	mg/kg	<0.5	<0.5	0
3030307	0805-D1	OP	Malathion	mg/kg	<0.5	<0.5	0
3030307	0805-D1	OP	Mevinphos	mg/kg	<0.5	<0.5	0
3030307	0805-D1	OP	Parathion	mg/kg	<0.5	<0.5	0
3030307	0805-D1	OP	Ronnel (Fenchlorfos)	mg/kg	<0.5	<0.5	0
3030307	0805-D1	OP	Stirofos	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Chlorpyrifos	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Diazinon	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Dichlorvos	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Ethion	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Fenthion	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Malathion	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Mevinphos	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Parathion	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Ronnel (Fenchlorfos)	mg/kg	<0.5	<0.5	0
3030485	0805-SS03	OP	Stirofos	mg/kg	<0.5	<0.5	0
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3032737	NCP	BTEXN	Benzene	mg/L	<0.001	<0.001	0
3032737	NCP	BTEXN	Toluene	mg/L	<0.001	<0.001	0
3032737	NCP	BTEXN	Ethyl Benzene	mg/L	<0.001	<0.001	0
3032737	NCP	BTEXN	Xylene - m & p	mg/L	<0.002	<0.002	0
3032737	NCP	BTEXN	Xylene - o	mg/L	<0.001	<0.001	0
3032737	NCP	BTEXN	Naphthalene	mg/L	<0.001	<0.001	0
3032737	NCP	BTEXN	Total Xylenes	mg/L	<0.002	<0.002	0
3032737	NCP	BTEXN	BTEX (Sum)	mg/L	<0.002	<0.002	0

QUALITY CONTROL - SPIKES

QC Data for spikes is calculated on raw 'unrounded' values. Laboratory spikes are randomly selected samples in which the analytes in question have been artificially introduced and recovered via standard analysis and are used to provide information on potential matrix effects on analyte recoveries.
Spike recoveries that fall outside the general acceptance criteria will be attributed to sample matrix interference or results of high magnitudes.
NCP: Non-Customer Parent (sample quality is representative of the analytical batch but the sample that was QC tested belongs to a customer not pertaining to the report.)

					Sample Value	Expected Value	% Recovery
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3031032	NCP	MS Total Metals	Antimony	mg/L	<0.001	0.040	106
3031032	NCP	MS Total Metals	Arsenic	mg/L	<0.001	0.040	97.6
3031032	NCP	MS Total Metals	Barium	mg/L	0.020	0.060	95.1
3031032	NCP	MS Total Metals	Beryllium	mg/L	<0.001	0.040	80.0
3031032	NCP	MS Total Metals	Cadmium	mg/L	<0.0002	0.040	101
3031032	NCP	MS Total Metals	Chromium	mg/L	<0.001	0.040	87.8
3031032	NCP	MS Total Metals	Cobalt	mg/L	<0.001	0.040	88.5
3031032	NCP	MS Total Metals	Copper	mg/L	0.013	0.053	86.9
3031032	NCP	MS Total Metals	Lead	mg/L	<0.001	0.040	93.7
3031032	NCP	MS Total Metals	Manganese	mg/L	0.004	0.044	89.0
3031032	NCP	MS Total Metals	Mercury	mg/L	<0.0001	0.00020	115
3031032	NCP	MS Total Metals	Molybdenum	mg/L	<0.001	0.040	83.6
3031032	NCP	MS Total Metals	Nickel	mg/L	<0.001	0.040	88.8
3031032	NCP	MS Total Metals	Selenium	mg/L	<0.001	0.040	106
3031032	NCP	MS Total Metals	Tin	mg/L	<0.001	0.040	95.2
3031032	NCP	MS Total Metals	Vanadium	mg/L	<0.001	0.040	89.9
3031032	NCP	MS Total Metals	Zinc	mg/L	0.002	0.042	102
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030329	0805-SS01	MS Total Metals	Antimony	mg/kg	<5	100	83.1
3030329	0805-SS01	MS Total Metals	Arsenic	mg/kg	33	130	86.3
3030329	0805-SS01	MS Total Metals	Barium	mg/kg	27	120	109
3030329	0805-SS01	MS Total Metals	Beryllium	mg/kg	<5	100	91.6
3030329	0805-SS01	MS Total Metals	Boron	mg/kg	<10	100	89.6
3030329	0805-SS01	MS Total Metals	Cadmium	mg/kg	0.2	100	111
3030329	0805-SS01	MS Total Metals	Chromium	mg/kg	35	130	88.5
3030329	0805-SS01	MS Total Metals	Cobalt	mg/kg	<5	100	92.5
3030329	0805-SS01	MS Total Metals	Copper	mg/kg	52	140	87.2
3030329	0805-SS01	MS Total Metals	Lead	mg/kg	7	110	99.7
3030329	0805-SS01	MS Total Metals	Manganese	mg/kg	150	230	108
3030329	0805-SS01	MS Total Metals	Mercury	mg/kg	<0.05	1.0	100
3030329	0805-SS01	MS Total Metals	Molybdenum	mg/kg	<5	100	92.2
3030329	0805-SS01	MS Total Metals	Nickel	mg/kg	9	110	93.0
3030329	0805-SS01	MS Total Metals	Selenium	mg/kg	<3	100	91.5
3030329	0805-SS01	MS Total Metals	Tin	mg/kg	<5	100	106
3030329	0805-SS01	MS Total Metals	Vanadium	mg/kg	73	160	87.3

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample Value	Expected Value	% Recovery
3030329	0805-SS01	MS Total Metals	Zinc	mg/kg	79	160	101
3030334	NCP	MS Total Metals	Barium	mg/kg	25	120	109
3030334	NCP	MS Total Metals	Cadmium	mg/kg	<0.2	100	106
3030334	NCP	MS Total Metals	Lead	mg/kg	18	110	94.6
3030334	NCP	MS Total Metals	Mercury	mg/kg	0.07	1.1	106
3030334	NCP	MS Total Metals	Tin	mg/kg	<5	100	105
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3032738	NCP	BTEXN	Benzene	mg/L	<0.001	0.019	92.5
3032738	NCP	BTEXN	Toluene	mg/L	<0.001	0.019	85.9
3032738	NCP	BTEXN	Ethyl Benzene	mg/L	<0.001	0.019	86.2
3032738	NCP	BTEXN	Xylene - m & p	mg/L	<0.002	0.037	75.9
3032738	NCP	BTEXN	Xylene - o	mg/L	<0.001	0.019	80.2
3032738	NCP	BTEXN	Naphthalene	mg/L	<0.001	0.019	74.1
3032738	NCP	BTEXN	Total Xylenes	mg/L	<0.002	0.056	77.3
3032738	NCP	BTEXN	BTEX (Sum)	mg/L	<0.002	0.11	82.8
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3031308	NCP	BTEXN	Benzene	mg/kg	<0.5	5.1	89.1
3031308	NCP	BTEXN	Toluene	mg/kg	<0.5	5.1	83.2
3031308	NCP	BTEXN	Ethyl Benzene	mg/kg	<0.5	5.1	80.7
3031308	NCP	BTEXN	Xylene - m&p	mg/kg	<1	10	85.1
3031308	NCP	BTEXN	Xylene - O	mg/kg	<0.5	5.1	86.2
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3032783	NCP	TRH & TPH	TPH C6-C9	mg/L	<0.1	0.57	93.8
3032783	NCP	TRH & TPH	TRH C6-C10	mg/L	<0.1	0.75	113
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030729	NCP	TRH & TPH	TPH C15-C28	mg/L	<0.1	3.1	107
3030729	NCP	TRH & TPH	TRH>C16-C34	mg/L	0.1	3.2	101
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3031332	NCP	TRH & TPH	TPHC6-C9	mg/kg	<20	130	104
3031332	NCP	TRH & TPH	TRHC6-C10	mg/kg	<20	140	105
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030739	NCP	TRH & TPH	TPH C15-C28	mg/kg	<50	860	90.4
3030739	NCP	TRH & TPH	TRH>C16-C34	mg/kg	<50	860	85.2
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030311	0805-D1	PAH	Acenaphthene	mg/kg	<0.1	1.5	101
3030311	0805-D1	PAH	Acenaphthylene	mg/kg	<0.1	1.5	102

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample Value	Expected Value	% Recovery
3030311	0805-D1	PAH	Anthracene	mg/kg	<0.1	1.5	108
3030311	0805-D1	PAH	Benz(a)anthracene	mg/kg	<0.1	1.5	106
3030311	0805-D1	PAH	Benzo(a)pyrene	mg/kg	<0.1	1.5	101
3030311	0805-D1	PAH	Benzo(b)fluoranthene	mg/kg	<0.1	1.5	101
3030311	0805-D1	PAH	Benzo(g,h,i)perylene	mg/kg	<0.1	1.5	98.8
3030311	0805-D1	PAH	Benzo(k)fluoranthene	mg/kg	<0.1	1.5	106
3030311	0805-D1	PAH	Chrysene	mg/kg	<0.1	1.5	105
3030311	0805-D1	PAH	Dibenz(a,h)anthracene	mg/kg	<0.1	1.5	97.4
3030311	0805-D1	PAH	Fluoranthene	mg/kg	<0.1	1.5	106
3030311	0805-D1	PAH	Fluorene	mg/kg	<0.1	1.5	102
3030311	0805-D1	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	<0.1	1.5	99.6
3030311	0805-D1	PAH	Naphthalene	mg/kg	<0.1	1.5	104
3030311	0805-D1	PAH	Phenanthrene	mg/kg	<0.1	1.5	106
3030311	0805-D1	PAH	Pyrene	mg/kg	<0.1	1.5	106
3030666	0805-SS03	PAH	Acenaphthene	mg/kg	<0.1	1.6	100
3030666	0805-SS03	PAH	Acenaphthylene	mg/kg	<0.1	1.6	101
3030666	0805-SS03	PAH	Anthracene	mg/kg	<0.1	1.6	103
3030666	0805-SS03	PAH	Benz(a)anthracene	mg/kg	<0.1	1.6	102
3030666	0805-SS03	PAH	Benzo(a)pyrene	mg/kg	<0.1	1.6	99.6
3030666	0805-SS03	PAH	Benzo(b)fluoranthene	mg/kg	<0.1	1.6	97.2
3030666	0805-SS03	PAH	Benzo(g,h,i)perylene	mg/kg	<0.1	1.6	101
3030666	0805-SS03	PAH	Benzo(k)fluoranthene	mg/kg	<0.1	1.6	105
3030666	0805-SS03	PAH	Chrysene	mg/kg	<0.1	1.6	107
3030666	0805-SS03	PAH	Dibenz(a,h)anthracene	mg/kg	<0.1	1.6	101
3030666	0805-SS03	PAH	Fluoranthene	mg/kg	<0.1	1.6	108
3030666	0805-SS03	PAH	Fluorene	mg/kg	<0.1	1.6	102
3030666	0805-SS03	PAH	Indeno(1,2,3-cd)pyrene	mg/kg	<0.1	1.6	102
3030666	0805-SS03	PAH	Naphthalene	mg/kg	<0.1	1.6	103
3030666	0805-SS03	PAH	Phenanthrene	mg/kg	<0.1	1.6	103
3030666	0805-SS03	PAH	Pyrene	mg/kg	<0.1	1.6	102
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3030308	0805-D1	OP	Chlorpyrifos	mg/kg	<0.5	1.5	95.0
3030308	0805-D1	OP	Diazinon	mg/kg	<0.5	1.5	103
3030308	0805-D1	OP	Dichlorvos	mg/kg	<0.5	1.5	93.0
3030308	0805-D1	OP	Ethion	mg/kg	<0.5	1.5	99.6
3030308	0805-D1	OP	Fenthion	mg/kg	<0.5	1.5	94.2

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample Value	Expected Value	% Recovery
3030308	0805-D1	OP	Malathion	mg/kg	<0.5	1.5	91.4
3030308	0805-D1	OP	Mevinphos	mg/kg	<0.5	1.5	81.0
3030308	0805-D1	OP	Parathion	mg/kg	<0.5	1.5	90.0
3030308	0805-D1	OP	Ronnel (Fenchlorfos)	mg/kg	<0.5	1.5	93.4
3030308	0805-D1	OP	Stirofos	mg/kg	<0.5	1.5	81.2
3030486	0805-SS03	OP	Chlorpyrifos	mg/kg	<0.5	1.6	93.0
3030486	0805-SS03	OP	Diazinon	mg/kg	<0.5	1.6	93.0
3030486	0805-SS03	OP	Dichlorvos	mg/kg	<0.5	1.6	97.2
3030486	0805-SS03	OP	Ethion	mg/kg	<0.5	1.6	78.6
3030486	0805-SS03	OP	Fenthion	mg/kg	<0.5	1.6	95.6
3030486	0805-SS03	OP	Malathion	mg/kg	<0.5	1.6	92.2
3030486	0805-SS03	OP	Mevinphos	mg/kg	<0.5	1.6	87.8
3030486	0805-SS03	OP	Parathion	mg/kg	<0.5	1.6	87.2
3030486	0805-SS03	OP	Ronnel (Fenchlorfos)	mg/kg	<0.5	1.6	93.6
3030486	0805-SS03	OP	Stirofos	mg/kg	<0.5	1.6	105

12-30210

Beveridge Williams
development & environment consultants

Chain of Custody Form

Job number	1101542	Page 1 of 1	
Client	Growth Area Authority	Laboratory	ALS Water Resources Group
Project	Surface Sampling	Quote number	2011-213A
Location	PSP 53 and 54 Clyde Creek, Clyde	Sampled by	A. HAYES / J. SERTORI

Sample ID	Date sampled	Matrix	No. of containers	Testing required: OCP									
0207-SS01	2/7/12	S	1	X									
0207-SS02	↓	↓	↓	X									
0207-SS03				X									
0207-SS04				X									
0207-SS05				X									
0207-SS06				X									
0207-SS07				X									
0207-SS08				X									
0207-SS09				X									
0207-SS11				X									
0207-SS12				X									
0207-SS13				X									
0207-SS14				X									
0207-SS15				X									
0207-D1		↓	↓	X									
0207-R1	↓	R	2	X									

Notes

Matrix: S = Soil GW = Groundwater W = Water R = Rinsate Soluble Heavy Metals: Ag, As, B, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Sn, V, Zn

Soil: A-S-BEV-W1 (HM/OCP) A-S-BEV-W2 (HM/PAH) A-S-BEV-W3 (HM/PAH/OCP) A-S-BEV-W4 (HM/TPH/PAH) A-S-BEV-W5 (EPA 621 w/ extra metals)

Water: A-W-BEV-W1 (EPA Table 2, TDS, pH, anions/cations, low level: PAH, OCP, TPH) A-BWANZLL (ANZECC screen, low level metals & organics)

Turnaround time: 24hr ☐ 48hr ☐ 72hr ☐ Standard ☑ Comments:

Chain of Custody

From	Company	Date	Received by	Company	Date	Time
J. SERTORI	Beveridge Williams	2/7/12	GUY HILL	ALSWRG	2/7/2012	1405

Quality control

		Initial
Sample preservation	Appropriate sample containers used, refrigerated or chilled samples supplied to laboratory	
Sample holding times	Tests conducted within specified holding times	
Final certificates	Re-testing of results as requested. Tests conducted and reported as per COC form	

ALS Group
Environmental Division (Water Resources Group)

CERTIFICATE OF ANALYSIS

Batch No:	**12-30210**	*Page*	Page 1 of 9
Final Report	313956	*Laboratory*	Scoresby Laboratory
		Address	Caribbean Business Park, 22 Dalmore Drive, Scoresby, VIC 3179
Client:	**Beveridge Williams & Co Pty Ltd**	*Phone*	03 8756 8000
Contact:	**Andrew Mellett**	*Fax*	03 9763 1862
Address:	PO Box 61 MALVERN VIC 3144	Contact:	Trang Phan Client Manager Le-Trang.Phan@alsglobal.com
Client Program Ref:	**1101542**	Date Sampled:	02-Jul-2012
ALS Program Ref:	**BEVWILL**	Date Samples Received:	02-Jul-2012
PO No:	**Not Available**	*Date Issued:*	**05-Jul-2012**

The sample(s) referred to in this report were analysed by the following method(s):
- NATA accreditation does not cover the performance of this service

Analysis	*Method*	*Laboratory*	*Analysis*	*Method*	*Laboratory*	*Analysis*	*Method*	*Laboratory*
OCP	VIC-CM048	Scoresby	**OCP**	VIC-CM048	Scoresby			

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

NATA Accredited
Laboratory No. 992

Accredited for compliance
with ISO/IEC 17025

Signatories
These results have been electronically signed by the authorised signatories indicated below. Electronic signing has been carried out in compliance with procedures specified in 21 CFR Part 11

Name	*Title*	*Name*	*Title*
Hao Zhang	**Team Leader, Organics**	**Kosta Christopoulos**	**Chemist/Analyst**

Batch No: 12-30210
Report Number: 313956
Client: Beveridge Williams & Co Pty Ltd
Client Program Ref: 1101542

LOR = Limit of reporting. When a reported LOR is higher than the standard LOR, this may be due to high moisture content, insufficient sample or matrix interference.
CAS Number = Chemistry Abstract Services Number. The analytical procedures in this report (including in house methods) are developed from internationally recognised procedures such as those published by USEPA, APHA and NEPM.

					Sample No.	3093530	3093531	3093532	3093533	3093534	3093535
					Client Sample ID	0207-SS01	0207-SS02	0207-SS03	0207-SS04	0207-SS05	0207-SS06
					Sample Date	02/07/12	02/07/12	02/07/12	02/07/12	02/07/12	02/07/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Analysis	**Analyte**	**CAS #**	**LOR**								
OCP	BHC (alpha isomer)	319-84-6	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	a-Endosulphan	959-98-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Aldrin	309-00-2	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	BHC (beta isomer)	319-85-7	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	b-Endosulphan	33213-65-9	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	cis-Chlordane	5103-71-9	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	trans-Chlordane	5103-74-2	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	BHC (delta isomer)	319-86-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	DDD	72-54-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	DDE	72-55-9	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	DDT	50-29-3	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Dieldrin	60-57-1	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Endosulfan Sulfate	1031-07-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Endrin	72-20-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Endrin Aldehyde	7421-93-4	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Endrin Ketone	53494-70-5	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Hexachlorobenzene	118-74-1	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Heptachlor Epoxide	1024-57-3	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Heptachlor	76-44-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	BHC (gamma isomer) [Lindane]	58-89-9	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Methoxychlor	72-43-5	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

Batch No: 12-30210
Report Number: 313956
Client: Beveridge Williams & Co Pty Ltd
Client Program Ref: 1101542

LOR = Limit of reporting. When a reported LOR is higher than the standard LOR, this may be due to high moisture content, insufficient sample or matrix interference.
CAS Number = Chemistry Abstract Services Number. The analytical procedures in this report (including in house methods) are developed from internationally recognised procedures such as those published by USEPA, APHA and NEPM.

					Sample No.	3093536	3093537	3093538	3093540	3093541	3093542
					Client Sample ID	0207-SS07	0207-SS08	0207-SS09	0207-SS11	0207-SS12	0207-SS13
					Sample Date	02/07/12	02/07/12	02/07/12	02/07/12	02/07/12	02/07/12
					Sample Type	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Analysis	Analyte	CAS #	LOR								
OCP	BHC (alpha isomer)	319-84-6	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	a-Endosulphan	959-98-8	<0.05	mg/kg		<0.05	<0.05	<0.05	0.18	<0.05	<0.05
OCP	Aldrin	309-00-2	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	BHC (beta isomer)	319-85-7	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	b-Endosulphan	33213-65-9	<0.05	mg/kg		<0.05	<0.05	<0.05	0.21	<0.05	<0.05
OCP	cis-Chlordane	5103-71-9	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	trans-Chlordane	5103-74-2	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	BHC (delta isomer)	319-86-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	DDD	72-54-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	0.07
OCP	ODE	72-55-9	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	0.16
OCP	DDT	50-29-3	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Dieldrin	60-57-1.	<0.05	mg/kg		<0.05	<0.05	<0.05	0.11	<0.05	<0.05
OCP	Endosulfan Sulfate	1031-07-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Endrin	72-20-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Endrin Aldehyde	7421-93-4	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Endrin Ketone	53494-70-5	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Hexachlorobenzene	118-74-1	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Heptachlor Epoxide	1024-57-3	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Heptachlor	76-44-8	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	BHC (gamma isomer) [Lindane]	58-89-9	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
OCP	Methoxychlor	72-43-5	<0.05	mg/kg		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

LOR = Limit of reporting. When a reported LOR is higher than the standard LOR, this may be due to high moisture content, insufficient sample or matrix interference.
CAS Number = Chemistry Abstract Services Number. The analytical procedures in this report (including in house methods) are developed from internationally recognised procedures such as those published by USEPA, APHA and NEPM.

					Sample No.	3093543	3093544	3093545	3093546
					Client Sample ID	0207-SS14	0207-SS15	0207-D1	0207-R1
					Sample Date	02/07/12	02/07/12	02/07/12	02/07/12
					Sample Type	SOIL	SOIL	SOIL	WATER
Analysis	**Analyte**	**CAS #**	**LOR**						
OCP	BHC (alpha Isomer)	319-84-6	<0.001	mg/L					<0.001
OCP	Aldrin	309-00-2	<0.001	mg/L					<0.001
OCP	BHC (beta Isomer)	319-85-7	<0.001	mg/L					<0.001
OCP	cis-Chlordane	5103-71-9	<0.001	mg/L					<0.001
OCP	trans-Chlordane	5103-74-2	<0.001	mg/L					<0.001
OCP	BHC (delta Isomer)	319-86-8	<0.001	mg/L					<0.001
OCP	4,4-DDD	72-54-8	<0.001	mg/L					<0.001
OCP	4,4-DDE	72-55-9	<0.001	mg/L					<0.001
OCP	4,4-DDT	50-29-3	<0.001	mg/L					<0.001
OCP	Dieldrin	60-57-1	<0.001	mg/L					<0.001
OCP	Endosulfan I	959-98-8	<0.001	mg/L					<0.001
OCP	Endosulfan Sulfate	1031-07-8	<0.001	mg/L					<0.001
OCP	Endrin Aldehyde	7421-93-4	<0.001	mg/L					<0.001
OCP	Endrin	72-20-8	<0.001	mg/L					<0.001
OCP	Endrin Ketone	53494-70-5	<0.001	mg/L					<0.001
OCP	Endosulfan II	33213-65-9	<0.001	mg/L					<0.001
OCP	Hexachlorobenzene	118-74-1	<0.001	mg/L					<0.001
OCP	Heptachlor Epoxide	1024-57-3	<0.001	mg/L					<0.001
OCP	Heptachlor	76-44-8	<0.001	mg/L					<0.001
OCP	Lindane (BHC gamma Isomer)	58-89-9	<0.001	mg/L					<0.001
OCP	Methoxychlor	72-43-5	<0.001	mg/L					<0.001
Analysis	**Analyte**	**CAS #**	**LOR**						
OCP	BHC (alpha isomer)	319-84-6	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	a-Endosulphan	959-98-8	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Aldrin	309-00-2	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	BHC (beta isomer)	319-85-7	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	b-Endosulphan	33213-65-9	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	cis-Chlordane	5103-71-9	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	trans-Chlordane	5103-74-2	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	BHC (delta isomer)	319-86-8	<0.05	mg/kg		<0.05	<0.05	<0.05	

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Sample No.	3093543	3093544	3093545	3093546
					Client Sample ID	0207-SS14	0207-SS15	0207-D1	0207-R1
					Sample Date	02/07/12	02/07/12	02/07/12	02/07/12
					Sample Type	SOIL	SOIL	SOIL	WATER
OCP	DDD	72-54-8	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	DDE	72-55-9	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	DDT	50-29-3	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Dieldrin	60-57-1	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Endosulfan Sulfate	1031-07-8	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Endrin	72-20-8	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Endrin Aldehyde	7421-93-4	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Endrin Ketone	53494-70-5	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Hexachlorobenzene	118-74-1	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Heptachlor Epoxide	1024-57-3	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Heptachlor	76-44-8	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	BHC (gamma isomer) [Lindane]	58-89-9	<0.05	mg/kg		<0.05	<0.05	<0.05	
OCP	Methoxychlor	72-43-5	<0.05	mg/kg		<0.05	<0.05	<0.05	

QUALITY CONTROL - BLANKS

QC Blanks are an 'analyte free' matrix in which all applicable reagents have been added in the same proportion as in standard samples and are an internal monitor for laboratory contamination.

					Value
Lab Sample ID	Client Sample ID	Analysis	Analyte		
3097713	QC - Blank	OCP	BHC (alpha Isomer)	mg/L	<0.001
3097713	QC - Blank	OCP	Aldrin	mg/L	<0.001
3097713	QC - Blank	OCP	BHC (beta Isomer)	mg/L	<0.001
3097713	QC - Blank	OCP	cis-Chlordane	mg/L	<0.001
3097713	QC - Blank	OCP	trans-Chlordane	mg/L	<0.001
3097713	QC - Blank	OCP	BHC (delta Isomer)	mg/L	<0.001
3097713	QC - Blank	OCP	4,4-DDD	mg/L	<0.001
3097713	QC - Blank	OCP	4,4-DDE	mg/L	<0.001
3097713	QC - Blank	OCP	4,4-DDT	mg/L	<0.001
3097713	QC - Blank	OCP	Dieldrin	mg/L	<0.001
3097713	QC - Blank	OCP	Endosulfan I	mg/L	<0.001
3097713	QC - Blank	OCP	Endosulfan Sulfate	mg/L	<0.001
3097713	QC - Blank	OCP	Endrin Aldehyde	mg/L	<0.001
3097713	QC - Blank	OCP	Endrin	mg/L	<0.001
3097713	QC - Blank	OCP	Endrin Ketone	mg/L	<0.001
3097713	QC - Blank	OCP	Endosulfan II	mg/L	<0.001
3097713	QC - Blank	OCP	Hexachlorobenzene	mg/L	<0.001
3097713	QC - Blank	OCP	Heptachlor Epoxide	mg/L	<0.001
3097713	QC - Blank	OCP	Heptachlor	mg/L	<0.001
3097713	QC - Blank	OCP	Lindane (BHC gamma Isomer)	mg/L	<0.001
3097713	QC - Blank	OCP	Methoxychlor	mg/L	<0.001
Lab Sample ID	Client Sample ID	Analysis	Analyte		
3095632	QC - Blank	OCP	BHC (alpha isomer)	mg/kg	<0.05
3095632	QC - Blank	OCP	a-Endosulphan	mg/kg	<0.05
3095632	QC - Blank	OCP	Aldrin	mg/kg	<0.05
3095632	QC - Blank	OCP	BHC (beta isomer)	mg/kg	<0.05
3095632	QC - Blank	OCP	b-Endosulphan	mg/kg	<0.05
3095632	QC - Blank	OCP	cis-Chlordane	mg/kg	<0.05
3095632	QC - Blank	OCP	trans-Chlordane	mg/kg	<0.05
3095632	QC - Blank	OCP	BHC (delta isomer)	mg/kg	<0.05

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

					Value
3095632	QC - Blank	OCP	DDD	mg/kg	<0.05
3095632	QC - Blank	OCP	DDE	mg/kg	<0.05
3095632	QC - Blank	OCP	DDT	mg/kg	<0.05
3095632	QC - Blank	OCP	Dieldrin	mg/kg	<0.05
3095632	QC - Blank	OCP	Endosulfan Sulfate	mg/kg	<0.05
3095632	QC - Blank	OCP	Endrin	mg/kg	<0.05
3095632	QC - Blank	OCP	Endrin Aldehyde	mg/kg	<0.05
3095632	QC - Blank	OCP	Endrin Ketone	mg/kg	<0.05
3095632	QC - Blank	OCP	Hexachlorobenzene	mg/kg	<0.05
3095632	QC - Blank	OCP	Heptachlor Epoxide	mg/kg	<0.05
3095632	QC - Blank	OCP	Heptachlor	mg/kg	<0.05
3095632	QC - Blank	OCP	BHC (gamma isomer) [Lindane]	mg/kg	<0.05
3095632	QC - Blank	OCP	Methoxychlor	mg/kg	<0.05

QUALITY CONTROL - DUPLICATES

QC Data for duplicates is calculated on raw 'unrounded' values. Laboratory duplicates are randomly selected samples tested by the laboratory to maintain method precision and provide information on sample homogeniety.
RPD = Relative Percentage Difference for duplicate determinations. RPD's that fall outside the general acceptance criteria will be attributed to non-homogeneity of samples or results of low magnitudes.

					Sample Value	Duplicate Value	% RPD
Lab Sample ID	Client Sample ID	Analysis	Analyte				
3095630	0207-SS04	OCP	BHC (alpha isomer)	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	a-Endosulphan	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Aldrin	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	BHC (beta isomer)	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	b-Endosulphan	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	cis-Chlordane	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	trans-Chlordane	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	BHC (delta isomer)	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	DDD	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	DDE	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	DDT	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Dieldrin	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Endosulfan Sulfate	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Endrin	mg/kg	<0.05	<0.05	0

					Sample Value	Duplicate Value	% RPD
3095630	0207-SS04	OCP	Endrin Aldehyde	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Endrin Ketone	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Hexachlorobenzene	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Heptachlor Epoxide	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Heptachlor	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	BHC (gamma isomer) [Lindane]	mg/kg	<0.05	<0.05	0
3095630	0207-SS04	OCP	Methoxychlor	mg/kg	<0.05	<0.05	0

QUALITY CONTROL - SPIKES

QC Data for spikes is calculated on raw 'unrounded' values. Laboratory spikes are randomly selected samples in which the analytes in question have been artificially introduced and recovered via standard analysis and are used to provide information on potential matrix effects on analyte recoveries.
Spike recoveries that fall outside the general acceptance criteria will be attributed to sample matrix interference or results of high magnitudes.
NCP: Non-Customer Parent (sample quality is representative of the analytical batch but the sample that was QC tested belongs to a customer not pertaining to the report.)

					Sample Value	Expected Value	% Recovery
Lab Sample ID	**Client Sample ID**	**Analysis**	**Analyte**				
3095631	0207-SS04	OCP	BHC (alpha isomer)	mg/kg	<0.05	1.6	99.0
3095631	0207-SS04	OCP	a-Endosulphan	mg/kg	<0.05	1.6	117
3095631	0207-SS04	OCP	Aldrin	mg/kg	<0.05	1.6	94.2
3095631	0207-SS04	OCP	BHC (beta isomer)	mg/kg	<0.05	1.6	100
3095631	0207-SS04	OCP	b-Endosulphan	mg/kg	<0.05	1.6	111
3095631	0207-SS04	OCP	cis-Chlordane	mg/kg	<0.05	1.6	97.0
3095631	0207-SS04	OCP	trans-Chlordane	mg/kg	<0.05	1.6	97.2
3095631	0207-SS04	OCP	BHC (delta isomer)	mg/kg	<0.05	1.6	101
3095631	0207-SS04	OCP	DDD	mg/kg	<0.05	1.6	126
3095631	0207-SS04	OCP	DDE	mg/kg	<0.05	1.6	112
3095631	0207-SS04	OCP	DDT	mg/kg	<0.05	1.6	73.0
3095631	0207-SS04	OCP	Dieldrin	mg/kg	<0.05	1.6	112
3095631	0207-SS04	OCP	Endosulfan Sulfate	mg/kg	<0.05	1.6	107
3095631	0207-SS04	OCP	Endrin	mg/kg	<0.05	1.6	109
3095631	0207-SS04	OCP	Endrin Aldehyde	mg/kg	<0.05	1.6	102
3095631	0207-SS04	OCP	Endrin Ketone	mg/kg	<0.05	1.6	106
3095631	0207-SS04	OCP	Hexachlorobenzene	mg/kg	<0.05	1.6	101
3095631	0207-SS04	OCP	Heptachlor Epoxide	mg/kg	<0.05	1.6	95.6
3095631	0207-SS04	OCP	Heptachlor	mg/kg	<0.05	1.6	86.2
3095631	0207-SS04	OCP	BHC (gamma isomer) [Lindane]	mg/kg	<0.05	1.6	98.8

					Sample Value	Expected Value	% Recovery
3095631	0207-SS04	OCP	Methoxychlor	mg/kg	<0.05	1.6	70.2

Samples tested as received. A blank space indicates no test performed. Soil results expressed in mg/kg dry weight unless specified otherwise. Microbiological testing was commenced within 24 hours of sampling unless otherwise stated. VIC-MM524: Plate count results <10 per mL and >300 per mL are deemed as approximate. VIC-MM526: Plate count results <2,500 per mL and >250,000 per mL are deemed as approximate. Calculated results are based on raw data.

Beveridge Williams
development & environmental consultants

Chain of Custody Form

Job number	1101542	Page	1 of 1
Client	Grouth Area Authority	Laboratory	MGT-LabMark
Project	Preliminary Site Investigation	Quote number	
Location	PSP 53 and PSP 54 Clyde Creek, Cylde	Sampled by	A.HAYES

Sample ID	Date sampled	Matrix	No. of containers	Testing required: Heavy metals	PAH	OCP	OPP	TRH and BTEX-n					
0805-SS01A	8/5/12	S	1	X	X	X	X	X					

Notes

Matrix: S = Soil GW = Groundwater W = Water R = Rinsate M-19 Heavy Metals: Ag, As, B, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Sn, V, Zn

Groundwater: Major Anions and Cations: Mg, K, Na, P, Cl, SO4, Fluoride, Alkalinity

448.3 Fill screen to include Low level: TPH (C6-C14 <0.04, C15-C36 <0.1mg/L), PAH (BaP <0.00001 mg/L) and OCP (<0.0001 mg/L)

Turnaround time 24hr ☐ 48hr ☐ 72hr ☐ Standard ☑ Comments:

Chain of Custody

From	Company	Date	Received by	Company	Date	Time
A.HAYES	Beveridge Williams	8/3/12		MGT-LM	8/5	3.30PM
			N.MAP	MGT	8/5	7:30PM

Quality control Initial

Sample preservation	Appropriate sample containers used, refrigerated or chilled samples supplied to laboratory	
Sample holding times	Tests conducted within specified holding times	
Final certificates	Re-testing of results as requested. Tests conducted and reported as per CoC form.	

#336403

mgt LabMark
ENVIRONMENTAL LABORATORIES

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Beveridge William & Co Pty Ltd
PO Box 61
Malvern
VIC 3144

Attention:Adam Hayes

Report	**336403-S**
Client Reference	GROUTH AREA AUTHORITY 1101542
Received Date	May 08, 2012

Client Sample ID			**0805-SS01A**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-My05696**
Date Sampled			**May 08, 2012**
Test/Reference	LOR	Unit	
Total Recoverable Hydrocarbons - 1999 NEPM Fractions			
TRH C6-C9	20	mg/kg	< 20
TRH C10-C14	20	mg/kg	< 20
TRH C15-C28	50	mg/kg	< 50
TRH C29-C36	50	mg/kg	< 50
TRH C10-36 (Total)	50	mg/kg	< 50
BTEX			
Benzene	0.05	mg/kg	< 0.05
Toluene	0.05	mg/kg	< 0.05
Ethylbenzene	0.05	mg/kg	< 0.05
o-Xylene	0.05	mg/kg	< 0.05
Total m+p-Xylenes	0.10	mg/kg	< 0.1
Xylenes(ortho.meta and para)	0.15	mg/kg	< 0.15
Fluorobenzene (surr.)	1	%	57
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *			
Naphthalene[N02]	0.5	mg/kg	< 0.5
TRH C6-C10	20	mg/kg	< 20
TRH C6-C10 less BTEX (F1)[N04]	20	mg/kg	< 20
TRH >C10-C16	50	mg/kg	< 50
TRH >C10-C16 less Naphthalene (F2)[N01]	50	mg/kg	< 50
TRH >C16-C34	100	mg/kg	< 100
TRH >C34-C40	100	mg/kg	< 100
Polycyclic Aromatic Hydrocarbons			
Acenaphthene	0.5	mg/kg	< 0.5
Acenaphthylene	0.5	mg/kg	< 0.5
Anthracene	0.5	mg/kg	< 0.5
Benz(a)anthracene	0.5	mg/kg	< 0.5
Benzo(a)pyrene	0.5	mg/kg	< 0.5
Benzo(b)fluoranthene	0.5	mg/kg	< 0.5
Benzo(g.h.i)perylene	0.5	mg/kg	< 0.5
Benzo(k)fluoranthene	0.5	mg/kg	< 0.5
Chrysene	0.5	mg/kg	< 0.5
Dibenz(a.h)anthracene	0.5	mg/kg	< 0.5
Fluoranthene	0.5	mg/kg	< 0.5
Fluorene	0.5	mg/kg	< 0.5
Indeno(1.2.3-cd)pyrene	0.5	mg/kg	< 0.5
Naphthalene	0.5	mg/kg	< 0.5

Client Sample ID			0805-SS01A
Sample Matrix			Soil
mgt-LabMark Sample No.			M12-My05696
Date Sampled			May 08, 2012
Test/Reference	LOR	Unit	
Phenanthrene	0.5	mg/kg	< 0.5
Pyrene	0.5	mg/kg	< 0.5
Total PAH	0.5	mg/kg	< 0.5
p-Terphenyl-d14 (surr.)	1	%	113
2-Fluorobiphenyl (surr.)	1	%	95
Organochlorine Pesticides			
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
Chlordane	0.1	mg/kg	< 0.1
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	69
Tetrachloro-m-xylene (surr.)	1	%	61
Organophosphorous Pesticides			
Bolstar	0.2	mg/kg	< 0.2
Chlorpyrifos	0.2	mg/kg	< 0.2
Demeton-O	0.2	mg/kg	< 0.2
Diazinon	0.2	mg/kg	< 0.2
Dichlorvos	0.2	mg/kg	< 0.2
Disulfoton	0.2	mg/kg	< 0.2
Ethion	0.2	mg/kg	< 0.2
Ethoprop	0.2	mg/kg	< 0.2
Fenitrothion	0.2	mg/kg	< 0.2
Fensulfothion	0.2	mg/kg	< 0.2
Fenthion	0.2	mg/kg	< 0.2
Merphos	0.2	mg/kg	< 0.2
Methyl azinphos	0.2	mg/kg	< 0.2
Methyl parathion	0.2	mg/kg	< 0.2
Mevinphos	0.2	mg/kg	< 0.2
Naled	0.5	mg/kg	< 0.5
Phorate	0.2	mg/kg	< 0.2
Ronnel	0.2	mg/kg	< 0.2
Tokuthion	0.2	mg/kg	< 0.2
Trichloronate	0.2	mg/kg	< 0.2

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Client Sample ID			0805-SS01A
Sample Matrix			Soil
mgt-LabMark Sample No.			M12-My05696
Date Sampled			May 08, 2012
Test/Reference	LOR	Unit	
Triphenylphosphate (surr.)	1	%	105
Heavy Metals			
Arsenic	2	mg/kg	43
Cadmium	0.4	mg/kg	0.7
Chromium	5	mg/kg	50
Copper	5	mg/kg	71
Lead	5	mg/kg	7.8
Mercury	0.1	mg/kg	0.3
Nickel	5	mg/kg	11
Zinc	5	mg/kg	98
% Moisture	0.1	%	18

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Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * - Method: LM-LTM-ORG2010	Melbourne	May 14, 2012	14 Day
Total Recoverable Hydrocarbons - 1999 NEPM Fractions - Method: TRH C6-C36 - MGT 100A	Melbourne	May 14, 2012	14 Day
BTEX and Naphthalene			
BTEX - Method: USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons	Melbourne	May 14, 2012	14 Day
Volatile Organics - Method: USEPA 8260 - MGT 350A Volatile Organics by GCMS	Melbourne	May 14, 2012	14 Day
Polycyclic Aromatic Hydrocarbons - Method: USEPA 8270 Polycyclic Aromatic Hydrocarbons	Melbourne	May 14, 2012	14 Day
Organochlorine Pesticides - Method: USEPA 8081 Organochlorine Pesticides	Melbourne	May 14, 2012	14 Day
Organophosphorous Pesticides - Method: USEPA 8141 Organophosphorus Pesticides	Melbourne	May 14, 2012	14 Day
Metals M8 - Method: USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury	Melbourne	May 14, 2012	28 Day
% Moisture - Method: Method 102 - ANZECC - % Moisture	Melbourne	May 14, 2012	14 Day

mgt LabMark
ENVIRONMENTAL LABORATORIES
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Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	Beveridge Williams & Co Pty Ltd	Order No.:		Received:	May 8, 2012 3:30 PM
Address:	PO Box 61	Report #:	336403	Due:	May 15, 2012 4:00 PM
	Malvern	Phone:	9524 8888	Priority:	5 Day
	VIC 3144	Fax:	9524 8899	Contact name:	Adam Hayes

Client Job No.: GROUTH AREA AUTHORITY 1101542

mgt-LabMark Client Manager: Natalie Krasselt

Sample Detail					% Moisture	Polycyclic Aromatic Hydrocarbons	Organochlorine Pesticides	Organophosphorous Pesticides	Metals M8	Total Recoverable Hydrocarbons	BTEX and Naphthalene
Laboratory where analysis is conducted											
Melbourne Laboratory - NATA Site # 1254 & 14271					X	X	X	X	X	X	X
Sydney Laboratory - NATA Site # 18217											
Brisbane Laboratory - NATA Site # 20794											
External Laboratory											
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**							
0805-SS01A	May 08, 2012		Soil	M12-My05696	X	X	X	X	X	X	X

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVQC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis.
7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001)

For samples received on the last day of holding time, notification of testing requirements should have been received at least

6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

****NOTE:** pH duplicates are reported as a range NOT as an RPD

UNITS

mg/kg:milligrams per Kilogram

mg/L:milligrams per litre

µg/L:micrograms per litre

ppm: Parts per million

ppb: Parts per billion

%:Percentage

org/100mL: Organisms per 100 millilitres

NTU: Nephelometric Turbidity Units

MPN/100mL: Most Probable Number of organisms per 100 millilitres

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands.
	In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice
CP:	Client Parent - QC was performed on samples pertaining to this report
NCP:	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample>
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	mg/kg	< 20			20	Pass	
TRH C10-C14	mg/kg	< 20			20	Pass	
TRH C15-C28	mg/kg	< 50			50	Pass	
TRH C29-C36	mg/kg	< 50			50	Pass	
Method Blank							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	mg/kg	< 0.05			0.05	Pass	
Toluene	mg/kg	< 0.05			0.05	Pass	
Ethylbenzene	mg/kg	< 0.05			0.05	Pass	
o-Xylene	mg/kg	< 0.05			0.05	Pass	
Total m+p-Xylenes	mg/kg	< 0.1			0.10	Pass	
Xylenes(ortho.meta and para)	mg/kg	< 0.15			0.15	Pass	
Method Blank							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
Naphthalene	mg/kg	< 0.5			0.5	Pass	
TRH C6-C10	mg/kg	< 20			20	Pass	
TRH >C10-C16	mg/kg	< 50			50	Pass	
TRH >C16-C34	mg/kg	< 100			100	Pass	
TRH >C34-C40	mg/kg	< 100			100	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	< 0.5			0.5	Pass	
Acenaphthylene	mg/kg	< 0.5			0.5	Pass	
Anthracene	mg/kg	< 0.5			0.5	Pass	
Benz(a)anthracene	mg/kg	< 0.5			0.5	Pass	
Benzo(a)pyrene	mg/kg	< 0.5			0.5	Pass	
Benzo(b)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Benzo(g.h.i)perylene	mg/kg	< 0.5			0.5	Pass	
Benzo(k)fluoranthene	mg/kg	< 0.5			0.5	Pass	
Chrysene	mg/kg	< 0.5			0.5	Pass	
Dibenz(a.h)anthracene	mg/kg	< 0.5			0.5	Pass	
Fluoranthene	mg/kg	< 0.5			0.5	Pass	
Fluorene	mg/kg	< 0.5			0.5	Pass	
Indeno(1.2.3-cd)pyrene	mg/kg	< 0.5			0.5	Pass	
Naphthalene	mg/kg	< 0.5			0.5	Pass	
Phenanthrene	mg/kg	< 0.5			0.5	Pass	
Pyrene	mg/kg	< 0.5			0.5	Pass	
Method Blank							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
Chlordane	mg/kg	< 0.1			0.1	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
Method Blank							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Bolstar	mg/kg	< 0.2			0.2	Pass	
Chlorpyrifos	mg/kg	< 0.2			0.2	Pass	
Demeton-O	mg/kg	< 0.2			0.2	Pass	
Diazinon	mg/kg	< 0.2			0.2	Pass	
Dichlorvos	mg/kg	< 0.2			0.2	Pass	
Disulfoton	mg/kg	< 0.2			0.2	Pass	
Ethion	mg/kg	< 0.2			0.2	Pass	
Ethoprop	mg/kg	< 0.2			0.2	Pass	
Fenitrothion	mg/kg	< 0.2			0.2	Pass	
Fensulfothion	mg/kg	< 0.2			0.2	Pass	
Fenthion	mg/kg	< 0.2			0.2	Pass	
Merphos	mg/kg	< 0.2			0.2	Pass	
Methyl azinphos	mg/kg	< 0.2			0.2	Pass	
Methyl parathion	mg/kg	< 0.2			0.2	Pass	
Mevinphos	mg/kg	< 0.2			0.2	Pass	
Naled	mg/kg	< 0.5			0.5	Pass	
Phorate	mg/kg	< 0.2			0.2	Pass	
Ronnel	mg/kg	< 0.2			0.2	Pass	
Tokuthion	mg/kg	< 0.2			0.2	Pass	
Trichloronate	mg/kg	< 0.2			0.2	Pass	
Method Blank							
Metals M8 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	mg/kg	< 2			2	Pass	
Cadmium	mg/kg	< 0.4			0.4	Pass	
Chromium	mg/kg	< 5			5	Pass	
Copper	mg/kg	< 5			5	Pass	
Lead	mg/kg	< 5			5	Pass	
Mercury	mg/kg	< 0.1			0.1	Pass	
Nickel	mg/kg	< 5			5	Pass	
Zinc	mg/kg	< 5			5	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - 1999 NEPM Fractions TRH C6-C36 - MGT 100A							
TRH C6-C9	%	87			70-130	Pass	
TRH C10-C14	%	122			70-130	Pass	
LCS - % Recovery							
BTEX USEPA 8260 - MGT 350A Monocyclic Aromatic Hydrocarbons							
Benzene	%	95			70-130	Pass	
Toluene	%	90			70-130	Pass	
Ethylbenzene	%	84			70-130	Pass	
Total m+p-Xylenes	%	82			70-130	Pass	
Xylenes(ortho.meta and para)	%	81			70-130	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions * LM-LTM-ORG2010							
TRH C6-C10	%	87			70-130	Pass	
TRH >C10-C16	%	124			70-130	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons USEPA 8270 Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	125			70-130	Pass	
Acenaphthylene	%	112			70-130	Pass	
Anthracene	%	110			70-130	Pass	
Benz(a)anthracene	%	103			70-130	Pass	
Benzo(a)pyrene	%	122			70-130	Pass	
Benzo(b)fluoranthene	%	102			70-130	Pass	
Benzo(g.h.i)perylene	%	99			70-130	Pass	
Benzo(k)fluoranthene	%	123			70-130	Pass	
Chrysene	%	111			70-130	Pass	
Dibenz(a.h)anthracene	%	116			70-130	Pass	
Fluoranthene	%	109			70-130	Pass	
Fluorene	%	110			70-130	Pass	
Indeno(1.2.3-cd)pyrene	%	121			70-130	Pass	
Naphthalene	%	112			70-130	Pass	
Phenanthrene	%	107			70-130	Pass	
Pyrene	%	129			70-130	Pass	
LCS - % Recovery							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	%	97			70-130	Pass	
4.4'-DDE	%	90			70-130	Pass	
4.4'-DDT	%	86			70-130	Pass	
a-BHC	%	93			70-130	Pass	
Aldrin	%	88			70-130	Pass	
b-BHC	%	80			70-130	Pass	
d-BHC	%	94			70-130	Pass	
Dieldrin	%	86			70-130	Pass	
Endosulfan I	%	82			70-130	Pass	
Endosulfan II	%	86			70-130	Pass	
Endosulfan sulphate	%	87			70-130	Pass	
Endrin	%	80			70-130	Pass	
Endrin aldehyde	%	87			70-130	Pass	
Endrin ketone	%	83			70-130	Pass	
g-BHC (Lindane)	%	82			70-130	Pass	
Heptachlor	%	84			70-130	Pass	
Heptachlor epoxide	%	83			70-130	Pass	
Hexachlorobenzene	%	82			70-130	Pass	
Methoxychlor	%	83			70-130	Pass	
LCS - % Recovery							
Organophosphorous Pesticides USEPA 8141 Organophosphorus Pesticides							
Diazinon	%	128			70-130	Pass	
Ethion	%	98			70-130	Pass	
Fenitrothion	%	120			70-130	Pass	
Methyl parathion	%	102			70-130	Pass	
Mevinphos	%	127			70-130	Pass	
LCS - % Recovery							
Metals M8 USEPA 6010/6020 Heavy Metals & USEPA 7470/71 Mercury							
Arsenic	%	98			80-120	Pass	
Cadmium	%	99			80-120	Pass	
Chromium	%	105			80-120	Pass	
Copper	%	107			80-120	Pass	
Lead	%	105			80-120	Pass	
Mercury	%	112			75-125	Pass	
Nickel	%	106			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Zinc	%	114			80-120	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1					
TRH C6-C9	M12-My08663	NCP	%	88			70-130	Pass	
TRH C10-C14	M12-My08565	NCP	%	106			70-130	Pass	
Spike - % Recovery									
BTEX				Result 1					
Benzene	M12-My08663	NCP	%	81			70-130	Pass	
Toluene	M12-My08663	NCP	%	100			70-130	Pass	
Ethylbenzene	M12-My08663	NCP	%	104			70-130	Pass	
o-Xylene	M12-My08663	NCP	%	85			70-130	Pass	
Total m+p-Xylenes	M12-My08663	NCP	%	89			70-130	Pass	
Xylenes(ortho.meta and para)	M12-My08663	NCP	%	88			70-130	Pass	
Spike - % Recovery									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1					
TRH C6-C10	M12-My08663	NCP	%	88			70-130	Pass	
TRH >C10-C16	M12-My08565	NCP	%	106			70-130	Pass	
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	B12-My06200	NCP	%	89			70-130	Pass	
4.4'-DDE	B12-My06200	NCP	%	89			70-130	Pass	
4.4'-DDT	B12-My06200	NCP	%	80			70-130	Pass	
a-BHC	B12-My06200	NCP	%	96			70-130	Pass	
Aldrin	B12-My06200	NCP	%	95			70-130	Pass	
b-BHC	B12-My06200	NCP	%	79			70-130	Pass	
d-BHC	B12-My06200	NCP	%	92			70-130	Pass	
Dieldrin	B12-My06200	NCP	%	88			70-130	Pass	
Endosulfan I	B12-My06200	NCP	%	86			70-130	Pass	
Endosulfan II	B12-My06200	NCP	%	84			70-130	Pass	
Endosulfan sulphate	B12-My06200	NCP	%	81			70-130	Pass	
Endrin	B12-My06200	NCP	%	83			70-130	Pass	
Endrin aldehyde	B12-My06200	NCP	%	80			70-130	Pass	
Endrin ketone	B12-My06200	NCP	%	70			70-130	Pass	
g-BHC (Lindane)	B12-My06200	NCP	%	85			70-130	Pass	
Heptachlor	B12-My06200	NCP	%	90			70-130	Pass	
Heptachlor epoxide	B12-My06200	NCP	%	87			70-130	Pass	
Hexachlorobenzene	B12-My06200	NCP	%	84			70-130	Pass	
Methoxychlor	B12-My06200	NCP	%	75			70-130	Pass	
Spike - % Recovery									
Metals M8				Result 1					
Arsenic	M12-My08404	NCP	%	89			75-125	Pass	
Cadmium	M12-My08404	NCP	%	91			75-125	Pass	
Chromium	M12-My08404	NCP	%	93			75-125	Pass	
Copper	A12-My08436	NCP	%	115			75-125	Pass	
Lead	M12-My08404	NCP	%	87			75-125	Pass	
Mercury	M12-My08663	NCP	%	104			70-130	Pass	
Nickel	M12-My08404	NCP	%	93			75-125	Pass	
Zinc	M12-My07006	NCP	%	85			75-125	Pass	
Duplicate									
Total Recoverable Hydrocarbons - 1999 NEPM Fractions				Result 1	Result 2	RPD			
TRH C6-C9	M12-My08663	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C10-C14	M12-My08565	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH C15-C28	M12-My08565	NCP	mg/kg	58	< 50	59	30%	Fail	Q15
TRH C29-C36	M12-My08565	NCP	mg/kg	67	53	22	30%	Pass	
Duplicate									

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
BTEX				Result 1	Result 2	RPD			
Benzene	M12-My08663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toluene	M12-My08663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Ethylbenzene	M12-My08663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
o-Xylene	M12-My08663	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Total m+p-Xylenes	M12-My08663	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Xylenes(ortho.meta and para)	M12-My08663	NCP	mg/kg	< 0.15	< 0.15	<1	30%	Pass	
Duplicate									
Total Recoverable Hydrocarbons - Draft 2010 NEPM Fractions *				Result 1	Result 2	RPD			
Naphthalene	M12-My08663	NCP	mg/kg	< 0.5	< 0.5	<1	30%	Pass	
TRH C6-C10	M12-My08663	NCP	mg/kg	< 20	< 20	<1	30%	Pass	
TRH >C10-C16	M12-My08565	NCP	mg/kg	< 50	< 50	<1	30%	Pass	
TRH >C16-C34	M12-My08565	NCP	mg/kg	100	< 100	40	30%	Fail	Q15
TRH >C34-C40	M12-My08565	NCP	mg/kg	< 100	< 100	33	30%	Fail	Q15
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
4.4'-DDD	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlordane	B12-My06200	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
d-BHC	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	B12-My06200	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	B12-My06200	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
Metals M8				Result 1	Result 2	RPD			
Arsenic	M12-My08404	NCP	mg/kg	5.0	5.0	1.0	30%	Pass	
Cadmium	M12-My08404	NCP	mg/kg	0.60	0.60	<1	30%	Pass	
Chromium	M12-My08404	NCP	mg/kg	9.7	9.0	8.0	30%	Pass	
Copper	M12-My08404	NCP	mg/kg	25	23	9.0	30%	Pass	
Lead	M12-My08404	NCP	mg/kg	25	23	4.0	30%	Pass	
Mercury	M12-My07036	NCP	mg/kg	0.30	0.30	5.0	30%	Pass	
Nickel	M12-My08404	NCP	mg/kg	54	48	12	30%	Pass	

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Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
Q15	The RPD reported passes mgt-LabMark's Acceptance Criteria as stipulated in SOP 05. Refer to Glossary Page of this report for further details

Glenn Jackson
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

Beveridge Williams
development & environment consultants

Chain of Custody Form

Job number	1101542	Page 1 of 1	
Client	Growth Area Authority	Laboratory	MGT-LabMark
Project	Surface Sampling	Quote number	
Location	PSP 53 and 54 Clyde Creek, Clyde	Sampled by	A. HAYES / J. SERTORI

Sample ID	Date sampled	Matrix	No. of containers	Testing required: OCP									
0207-SS01A	2/7/12	S	1	X									

Notes

Matrix: S = Soil GW = Groundwater W = Water R = Rinsate M-19 Heavy Metals: Ag, As, B, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Sn, V, Zn

Groundwater: Major Anions and Cations: Mg, K, Na, P, Cl, SO4, Fluoride, Alkalinity

448.3 Fill screen to include Low level: TPH (C6-C14 <0.04, C15-C36 <0.1mg/L), PAH (BaP <0.00001 mg/L) and OCP (<0.0001 mg/L)

Turnaround time	24hr ☐	48hr ☐	72hr ☐	Standard ☑	Comments:

Chain of Custody

From	Company	Date	Received by	Company	Date	Time
J. SERTORI	Beveridge Williams	2/7/12	[signature]	MGT-LM	2/7/12	2:25 PM

Quality control		Initial
Sample preservation	Appropriate sample containers used, refrigerated or chilled samples supplied to laboratory	JS
Sample holding times	Tests conducted within specified holding times	dtt
Final certificates	Re-testing of results as requested. Tests conducted and reported as per CoC form.	dtt

Report:
342929

mgt LabMark
ENVIRONMENTAL LABORATORIES

Certificate of Analysis

NATA Accredited
Accreditation Number 1261
Site Number 1254

Accredited for compliance with ISO/IEC 17025.
The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Beveridge William & Co Pty Ltd
PO Box 61
Malvern
VIC 3144

Attention:J Sertori

Report	**342929-S**
Client Reference	SURFACE SAMPLING 1101542
Received Date	Jul 02, 2012

Client Sample ID			**0207-2201A**
Sample Matrix			**Soil**
mgt-LabMark Sample No.			**M12-JI00851**
Date Sampled			**Jul 02, 2012**
Test/Reference	LOR	Unit	
Organochlorine Pesticides			
4.4'-DDD	0.05	mg/kg	< 0.05
4.4'-DDE	0.05	mg/kg	< 0.05
4.4'-DDT	0.05	mg/kg	< 0.05
a-BHC	0.05	mg/kg	< 0.05
Aldrin	0.05	mg/kg	< 0.05
b-BHC	0.05	mg/kg	< 0.05
Chlordane	0.1	mg/kg	< 0.1
d-BHC	0.05	mg/kg	< 0.05
Dieldrin	0.05	mg/kg	< 0.05
Endosulfan I	0.05	mg/kg	< 0.05
Endosulfan II	0.05	mg/kg	< 0.05
Endosulfan sulphate	0.05	mg/kg	< 0.05
Endrin	0.05	mg/kg	< 0.05
Endrin aldehyde	0.05	mg/kg	< 0.05
Endrin ketone	0.05	mg/kg	< 0.05
g-BHC (Lindane)	0.05	mg/kg	< 0.05
Heptachlor	0.05	mg/kg	< 0.05
Heptachlor epoxide	0.05	mg/kg	< 0.05
Hexachlorobenzene	0.05	mg/kg	< 0.05
Methoxychlor	0.05	mg/kg	< 0.05
Toxaphene	0.1	mg/kg	< 0.1
Dibutylchlorendate (surr.)	1	%	83
Tetrachloro-m-xylene (surr.)	1	%	99
% Moisture	0.1	%	24

Sample History

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported.

Description	Testing Site	Extracted	Holding Time
Organochlorine Pesticides	Melbourne	Jul 05, 2012	14 Day
- Method: USEPA 8081 Organochlorine Pesticides			
% Moisture	Melbourne	Jul 05, 2012	14 Day
- Method: Method 102 - ANZECC - % Moisture			

mgt LabMark
ENVIRONMENTAL LABORATORIES
ABN – 50 005 085 521 e.mail : enviro@mgtlabmark.com.au web : www.mgtlabmark.com.au

Melbourne
3-5 Kingston Town Close
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Phone : +61 3 9564 7055
NATA # 1261
Site # 1254

Sydney
Unit F6, Building F
16 Mars Road
Lane Cove West NSW 2066
Phone : +61 2 8215 6222
NATA # 1261 Site # 18217

Brisbane
1/21 Smallwood Place
Murarrie QLD 4172
Phone : +61 7 3902 4600
NATA # 1261 Site # 20794

Company Name:	Beveridge Williams & Co Pty Ltd	**Order No.:**	
Address:	PO Box 61	**Report #:**	342929
	Malvern	**Phone:**	9524 8888
	VIC 3144	**Fax:**	9524 8899
Client Job No.:	SURFACE SAMPLING 1101542		

Received:	Jul 2, 2012 2:25 PM
Due:	Jul 9, 2012 4:00 PM
Priority:	5 Day
Contact Name:	J Sertori

mgt-LabMark Client Manager: Natalie Krasselt

Sample Detail					% Moisture	Organochlorine Pesticides
Laboratory where analysis is conducted						
Melbourne Laboratory - NATA Site # 1254 & 14271					X	X
Sydney Laboratory - NATA Site # 18217						
Brisbane Laboratory - NATA Site # 20794						
External Laboratory						
Sample ID	**Sample Date**	**Sampling Time**	**Matrix**	**LAB ID**		
0207-2201A	Jul 02, 2012		Soil	M12-JI00851	X	X

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. Actual PQLs are matrix dependant. Quoted PQLs may be raised where sample extracts are diluted due to interferences.
4. Results are uncorrected for matrix spikes or surrogate recoveries.
5. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
6. Samples were analysed on an 'as received' basis.
7. This report replaces any interim results previously issued.

Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001)

For samples received on the last day of holding time, notification of testing requirements should have been received at least

6 hours prior to sample receipt deadlines as stated on the Sample Receipt Acknowledgment

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

**NOTE: pH duplicates are reported as a range NOT as an RPD

UNITS

mg/kg:milligrams per Kilogram
µg/L:micrograms per litre
ppb: Parts per billion
org/100mL: Organisms per 100 millilitres
MPN/100mL: Most Probable Number of organisms per 100 millilitres
mg/L:milligrams per litre
ppm: Parts per million
%:Percentage
NTU: Nephelometric Turbidity Units

TERMS

Dry:	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
LOR:	Limit Of Reporting.
SPIKE:	Addition of the analyte to the sample and reported as percentage recovery.
RPD:	Relative Percent Difference between two Duplicate pieces of analysis.
LCS:	Laboratory Control Sample - reported as percent recovery.
CRM:	Certified Reference Material - reported as percent recovery.
Method Blank:	In the case of solid samples these are performed on laboratory certified clean sands.
	In the case of water samples these are performed on de-ionised water.
Surr - Surrogate:	The addition of a like compound to the analyte target and reported as percentage recovery.
Duplicate:	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
Batch Duplicate:	A second piece of analysis from a sample outside of the client's batch of samples but run within the laboratory batch of analysis.
Batch SPIKE:	Spike recovery reported on a sample from outside of the client's batch of samples but run within the laboratory batch of analysis.
USEPA:	U.S Environmental Protection Agency
APHA:	American Public Health Association
ASLP:	Australian Standard Leaching Procedure (AS4439.3)
TCLP:	Toxicity Characteristic Leaching Procedure
COC:	Chain Of Custody
SRA:	Sample Receipt Advice
CP:	Client Parent - QC was performed on samples pertaining to this report
NCP:	Non-Client Parent - QC was performed on samples not pertaining to this report, however QC is representative of the sequence or batch that client samples were analysed within

QC - ACCEPTANCE CRITERIA

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries : Recoveries must lie between 50-150% - Phenols 20-130%.

QC DATA GENERAL COMMENTS

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxophene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxophene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling.Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Arochlor 1260 in Matrix Spikes and LCS's.
9. For Matrix Spikes and LCS results a dash " -" in the report means that the specific analyte was not added to the QC sample>
10. Duplicate RPD's are calculated from raw analytical data thus it is possible to have two sets of data below the LOR with a positive RPD - eg: LOR 0.1, Result A = <0.1 (raw data is 0.02) & Result B = <0.1 (raw data is 0.03) resulting in a RPD of 40% calculated from the raw data.

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	mg/kg	< 0.05			0.05	Pass	
4.4'-DDE	mg/kg	< 0.05			0.05	Pass	
4.4'-DDT	mg/kg	< 0.05			0.05	Pass	
a-BHC	mg/kg	< 0.05			0.05	Pass	
Aldrin	mg/kg	< 0.05			0.05	Pass	
b-BHC	mg/kg	< 0.05			0.05	Pass	
Chlordane	mg/kg	< 0.1			0.1	Pass	
d-BHC	mg/kg	< 0.05			0.05	Pass	
Dieldrin	mg/kg	< 0.05			0.05	Pass	
Endosulfan I	mg/kg	< 0.05			0.05	Pass	
Endosulfan II	mg/kg	< 0.05			0.05	Pass	
Endosulfan sulphate	mg/kg	< 0.05			0.05	Pass	
Endrin	mg/kg	< 0.05			0.05	Pass	
Endrin aldehyde	mg/kg	< 0.05			0.05	Pass	
Endrin ketone	mg/kg	< 0.05			0.05	Pass	
g-BHC (Lindane)	mg/kg	< 0.05			0.05	Pass	
Heptachlor	mg/kg	< 0.05			0.05	Pass	
Heptachlor epoxide	mg/kg	< 0.05			0.05	Pass	
Hexachlorobenzene	mg/kg	< 0.05			0.05	Pass	
Methoxychlor	mg/kg	< 0.05			0.05	Pass	
Toxaphene	mg/kg	< 0.1			0.1	Pass	
LCS - % Recovery							
Organochlorine Pesticides USEPA 8081 Organochlorine Pesticides							
4.4'-DDD	%	80			70-130	Pass	
4.4'-DDE	%	78			70-130	Pass	
4.4'-DDT	%	81			70-130	Pass	
a-BHC	%	79			70-130	Pass	
Aldrin	%	78			70-130	Pass	
b-BHC	%	75			70-130	Pass	
d-BHC	%	81			70-130	Pass	
Dieldrin	%	80			70-130	Pass	
Endosulfan I	%	77			70-130	Pass	
Endosulfan II	%	77			70-130	Pass	
Endosulfan sulphate	%	76			70-130	Pass	
Endrin	%	78			70-130	Pass	
Endrin aldehyde	%	75			70-130	Pass	
Endrin ketone	%	77			70-130	Pass	
g-BHC (Lindane)	%	76			70-130	Pass	
Heptachlor	%	79			70-130	Pass	
Heptachlor epoxide	%	78			70-130	Pass	
Hexachlorobenzene	%	71			70-130	Pass	
Methoxychlor	%	80			70-130	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery									
Organochlorine Pesticides				Result 1					
4.4'-DDD	M12-JI04154	NCP	%	75			70-130	Pass	
4.4'-DDE	M12-JI04154	NCP	%	76			70-130	Pass	
4.4'-DDT	M12-JI04154	NCP	%	79			70-130	Pass	
a-BHC	M12-JI04154	NCP	%	79			70-130	Pass	
Aldrin	M12-JI04154	NCP	%	77			70-130	Pass	

mgt-LabMark 2-5 Kingston Town Close, Oakleigh, Victoria, Australia, 3166
ABN : 50 005 085 521 Telephone: +61 3 9564 7055 Facsimile: +61 3 9564 7190

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
b-BHC	M12-JI04154	NCP	%	75			70-130	Pass	
d-BHC	M12-JI04154	NCP	%	80			70-130	Pass	
Dieldrin	M12-JI04154	NCP	%	78			70-130	Pass	
Endosulfan I	M12-JI04154	NCP	%	75			70-130	Pass	
Endosulfan II	M12-JI04154	NCP	%	74			70-130	Pass	
Endosulfan sulphate	M12-JI04154	NCP	%	72			70-130	Pass	
Endrin	M12-JI04154	NCP	%	76			70-130	Pass	
Endrin aldehyde	M12-JI04154	NCP	%	73			70-130	Pass	
Endrin ketone	M12-JI04154	NCP	%	73			70-130	Pass	
g-BHC (Lindane)	M12-JI04154	NCP	%	76			70-130	Pass	
Heptachlor	M12-JI04154	NCP	%	79			70-130	Pass	
Heptachlor epoxide	M12-JI04154	NCP	%	77			70-130	Pass	
Hexachlorobenzene	M12-JI04154	NCP	%	71			70-130	Pass	
Methoxychlor	M12-JI04154	NCP	%	79			70-130	Pass	
Duplicate									
Organochlorine Pesticides				Result 1	Result 2	RPD			
4.4'-DDD	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDE	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
4.4'-DDT	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
a-BHC	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Aldrin	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
b-BHC	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Chlordane	M12-JI04154	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	
d-BHC	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Dieldrin	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan I	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan II	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endosulfan sulphate	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin aldehyde	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Endrin ketone	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
g-BHC (Lindane)	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Heptachlor epoxide	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Hexachlorobenzene	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Methoxychlor	M12-JI04154	NCP	mg/kg	< 0.05	< 0.05	<1	30%	Pass	
Toxaphene	M12-JI04154	NCP	mg/kg	< 0.1	< 0.1	<1	30%	Pass	

mgt LabMark
ENVIRONMENTAL LABORATORIES

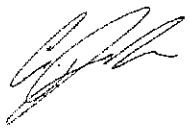
Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Organic samples had Teflon liners	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Authorised By

Natalie Krassell	Client Services
Stacey Jenkins	Senior Analyst-Organic (VIC)



Glenn Jackson
Laboratory Manager

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Uncertainty data is available on request

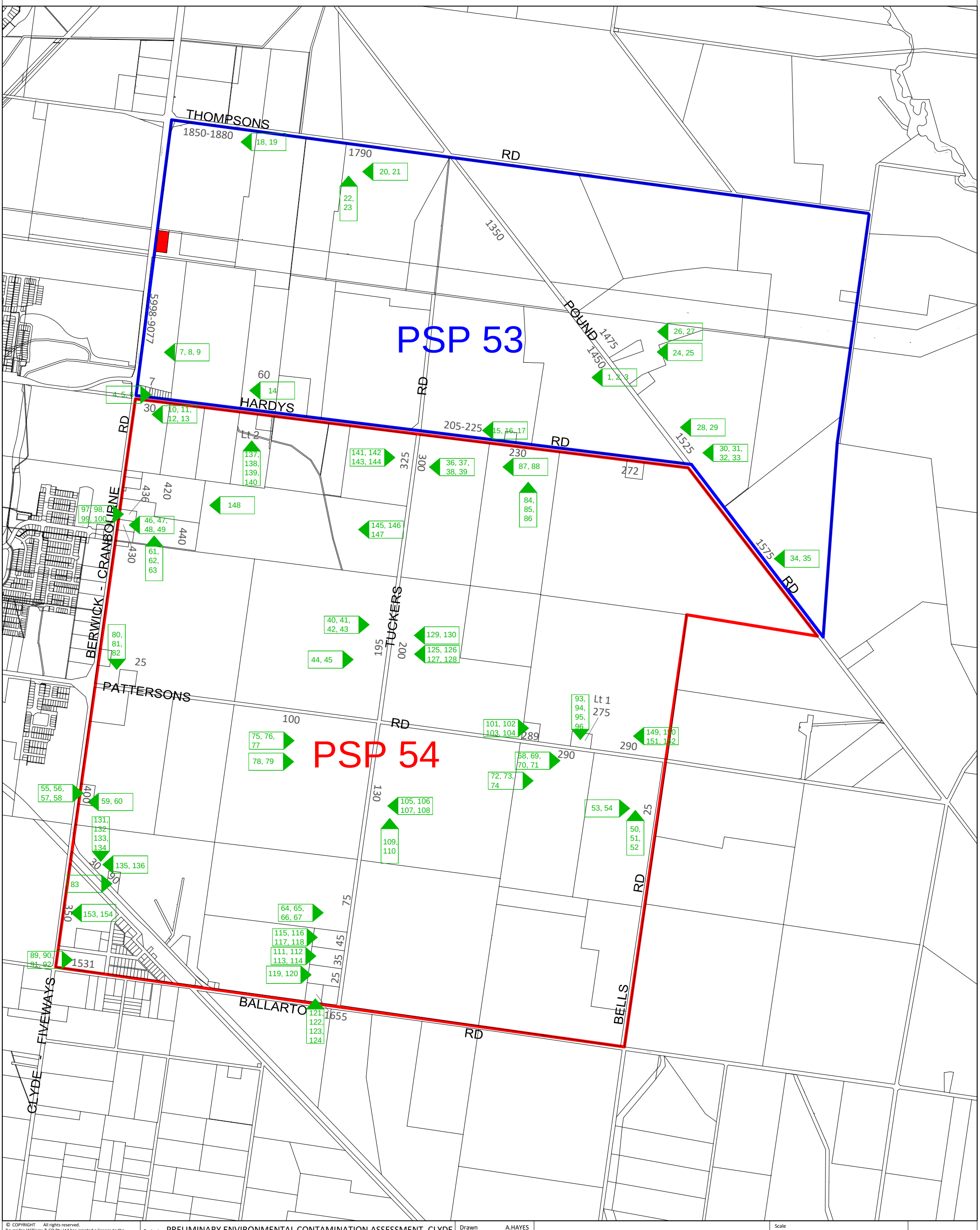
APPENDIX G. SITE PHOTOGRAPHS

PSP 53

PSP54

1, 2, 3 Approximate Location of Site Inspection Photographs

300 200 100 0 400 800 1,200 1,600 2,000 m



Rev Description Date By App.

Project Name: PRELIMINARY ENVIRONMENTAL CONTAMINATION ASSESSMENT, CLYDE CREEK & THOMPSONS ROAD, CLYDE (PSP 53 & PSP 54)

Drawing Title: SITE INSPECTION PHOTOGRAPH LOCATIONS

Client: GROWTH AREAS AUTHORITY

Drawn A.HAYES
Date 29.05.12
Approved B.CLAY
Date 15.06.12
Sheet 01

Beveridge Williams
development & environment consultants
1 Glenferrie Road
Malvern VIC 3144
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Fax: 03 9524 8899
www.beveridgewilliams.com.au

Scale 1:20,000 @ A3

Project Ref. 1101542 | Figure No. 06 | Rev. 0

Drawing Ref. K:\JOBS DATA\1101542_GAA_ENV\00\PLANS\1101542-F05-SITE AREAS AND POTENTIAL CONTAMINATION SOURCES.DWG

N

Property: 1450 Pound Road

Photograph 1: View of old milking shed north of residence.

Photograph 2: Diesel AST adjacent to the rear (west) wall of the garage and residence.

Photograph 3: View of open paddocks to the west of the residence.

Property: 7 Hardy's Road

Photograph 4: View of storage area west of workshop from Hardy's Road.

Photograph 5: View of workshop area.

Photograph 6: View of storage area to the east of the workshop.

Property: 5998-9077 Berwick-Cranbourne Road

Photograph 7: View west of former residence/site office.

Photograph 8: View east of parking pace, open storage bay and shed.

Photograph 9: View south of horse training pen.

Property: 30 Hardy's Road

Photograph 10: View west of old farm/storage shed.

Photograph 11: View south of hay shed.

Photograph 12: Old abandoned AST south of old storage shed.

Photograph 13: Diesel AST located along the south wall of the hay shed.

Property: 60 Hardy's Road

Photograph 14: View north from Hardy's Road of hay storage west of residence.

Property: 205-225 Hardy's Road

Photograph 15: View north west from Hardy's Road of residence.

Photograph 16: View west of storage/garage located east of residence.

Photograph 17: View east from outside front storage/garage of crushed rock hard stand area.

Property: 1790 Thompsons Road

Photograph 18: View of dirt driveway with stock loading ramp from Thompsons Road.

Photograph 19: View of open paddock area from Thompsons Road.

Property: 1850-1880 Thompsons Road

Photograph 20: View east from main farm building area.

Photograph 21: Vehicle storage shed east of former residence.

Photograph 22: Milk shed stock pens and loading ramp.

Photograph 23: Former farm residence west of milking shed.

Property: 1475 Pound Road

Photograph 24: Stock holding pens and former milking shed.

Photograph 25: AST located north of former milking shed.

Photograph 26: Exposed buried waste to the east of nearby residence.

Photograph 27: Open paddocks in the east portion of the site.

Property: 1525 Pound Road

Photograph 28: Brick residence to the east of Pound Road.

Photograph 29: View south towards sheds from the brick residence.

Photograph 30: Storage shed with agricultural lime and raised furnace to the south of the residence.

Photograph 31: Area of staining and dead vegetation east of the storage shed with furnace.

Photograph 32: Scrap storage and AST adjacent to south storage shed.

Photograph 33: Open paddock area to the east of residence and storage sheds.

Property: 1575 Pound Road

Photograph 34: Stock loading ramp and gravel driveway along Pound Road.

Photograph 35: Open Paddock area east of stock loading ramp.

Property: 300 Tuckers Road

Photograph 36: Dirt driveway viewed from residence.

Photograph 37: Animal pen and former machine shed converted to a dog run.

Photograph 38: Former milking shed, now used as storage.

Photograph 39: Storage area to the east of the former milking shed and residence.

Property: 195 Tuckers Road

Photograph 40: Horse stables converted form former milking shed in north east portion of the property.

Photograph 41: Horse stables in north east portion of the property.

Photograph 42: Crushed rock base for temporary building (never constructed).

Photograph 43: Horse training pen/machine storage and water tank west of the horse stables.

Photograph 44: Former farm residence converted to site office south of horse stables.

Photograph 45: Former farm residence south east of site office.

Property: 430 Berwick Cranbourne Road

Photograph 46: Storage shed/entertainment room north of residence.

Photograph 47: Driveway and storage/parking area north of residence.

Photograph 48: Shipping container used for storage.

Photograph 49: grassed and landscaped area in west portion of the property along Berwick-Cranbourne Road.

Property: 25 Bells Road

Photograph 50: Residence and grassed area in north east portion of the property.

Photograph 51: Hay shed located south of residence.

Photograph 52: Storage sheds and tractor storage located south west of residence.

Photograph 53: Weatherboard and bonded cement storage/entertainment shed west of residence.

Photograph 54: Area of disturbance/demolished building west of residence.

Property: 400 Clyde Five Ways Road

Photograph 55: Concrete driveway and brick residence.

Photograph 56: Landscaped front garden west of the residence.

Photograph 57: Old car storage located south of the residence.

Photograph 58: Car storage and AST south of the residence.

Photograph 59: Storage sheds and woodpile south of the car storage area.

Photograph 60: small storage shed located in the south portion of the site.

Property: 440 Berwick Cranbourne Road

Photograph 61: Residence located in north portion of the site.

Photograph 62: Stock holding paddocks south and east of the residence.

Photograph 63: Horse training yard in south east portion of the site.

Property: 75 Tuckers Road

Photograph 64: Storage sheds west of residence.

Photograph 65: Storage shed and vehicle storage west of residence.

Photograph 66: Diesel AST located to the south of the storage shed.

Photograph 67: Spray tank and hay storage.

Property: 290 Paterson's Road

Photograph 68: Farm machine storage.

Photograph 69: Animal wash down and cleaning pad.

Photograph 70: Stables and saw dust storage.

Photograph 71: Horse event training pen with sand base to the west of the storage sheds.

Photograph 72: Horse training pen to the west of the storage sheds.

Photograph 73: Old groundwater bore pump south of the residence.

Photograph 74: Open paddocks to the south of the residence and storage sheds.

Property: 100 Patterson's Road

Photograph 75: Two residences located in the north east portion of the property.

Photograph 76: Former milking shed with water storage tank on the roof located to the south of the residences.

Photograph 77: Underground water tanks located adjacent to the former milking shed.

Photograph 78: Hay and vehicle storage shed located north of the former milking shed.

Photograph 79: Open paddocks to the south of the former milking shed.

Property: 33 Patterson's Road

Photograph 80: Truck parking/loading area in the south west portion of the site.

Photograph 81: Diesel ASTs located in the south west portion adjacent to a storage shed and vegetable washing shed.

Photograph 82: Open paddocks used for grazing in the north portion of the site.

Property: 90 Twyford Road

Photograph 83: Landscaped area and residence in the south portion of the site.

Property: 230 Hardy's Road

Photograph 84: Horse stables located to the south west of the residence.

Photograph 85: Rear of stables and open crushed rock storage to the south west of the residence.

Photograph 86: Horse training pen to the west of the stables.

Photograph 87: Two diesel ASTs located to the north of the stables.

Photograph 88: Rose cultivation greenhouses to the west of the stables and ASTs.

Property: 1531 Ballarto Road

Photograph 89: Driveway and landscaped area in the north portion of the property.

Photograph 90: Residence located in the north west portion of the property.

Photograph 91: Open paddock area to the south of the residence.

Photograph 92: Open paddock area to the east of the residence.

Property: L1 275 Patterson's Road

Photograph 93: Brick residence in the west portion of the property.

Photograph 94: Storage shed along east property boundary.

Photograph 95: Gravel driveway and hard stand area in the central portion of the property.

Photograph 96: Open paddock and hard inert waste and burn off area.

Property: 436 Berwick Cranbourne Road

Photograph 97: Landscaped garden area and front on residence in the west portion of the property.

Photograph 98: Rear of the residence with landscaped garden and concrete parking area.

Photograph 99: View of east portion of the property from south portion.

Photograph 100: Open storage area including sheet metal, pipes and paint buckets.

Property: 289 Paterson's Road

Photograph 101: Rear of residence and animal pens in north portion of the property.

Photograph 102: Wood and vehicle storage shed to the north east of the residence.

Photograph 103: Open grassed area to the west of the residence.

Photograph 104: Open grassed area to the south east of the residence with football posts.

Property: 130 Tuckers Road

Photograph 105: Brick residence and garage in the west portion of the property.

Photograph 106: Horse pen and grave drive way south of the residence.

Photograph 107: Storage shed south of the residence.

Photograph 108: Storage sheds and former farmhouse to the west of the residence.

Photograph 109: Stock loading ramp and pens to the east of the storage sheds.

Photograph 110: Open paddocks to the east of the residence and storage sheds used for grazing.

Property: 35 Tuckers Road

Photograph 111: Residence in the central portion of the property.

Photograph 112: Vehicle and hard waste storage to the south west of the residence.

Photograph 113: Underground water tank to the west of the residence.

Photograph 114: Vehicle storage shed and gravel driveway in the south west portion of the property.

Property: 45 Tuckers Road

Photograph 115: Residence in the east portion of the property.

Photograph 116: Open paddock with hard waste in the west portion of the property.

Photograph 117: Hard waste and rear of storage shed in the central portion of the property.

Photograph 118: Vehicle and machine storage shed in the central portion of the property.

Property: 25 Tuckers Road

Photograph 119: View of north potion of the property from north boundary.

Photograph 120: View of central east portion of the property from the north boundary.

Property: 1655 Ballarto Road

Photograph 121: Residence in the east portion of the property.

Photograph 122: Large storage shed and truck parking to the west of the residence.

Photograph 123: Truck parking and refuelling in the west portion of the property.

Photograph 124: Gravel driveway and diesel AST in the south portion of the property.

Property: 200 Tuckers Road

Photograph 125: Packing crate storage and main driveway in west portion of the property.

Photograph 126: Oil barrels in vehicle maintenance shed.

Photograph 127: Waste oil AST located in the vehicle maintenance shed.

Photograph 128: ASTs located to the north of the vehicle maintenance shed.

Photograph 129: Market garden chemical storage shed located in the west portion of the property.

Photograph 130: View of market garden crops in the east portion of the property.

Property: 30 Twyford Road

Photograph 131: View of the market garden crops in the east portion of the property.

Photograph 132: Office area and staff lunch rooms in the south portion of the property.

Photograph 133: Crop processing and loading sheds in the south portion of the property.

Photograph 134: Refuelling bowsers linked to diesel USTs.

Photograph 135: View of main drive way/loading area in the south portion of the property.

Photograph 136: Dirt hardstand/loading platform located to the south of the processing sheds.

Property: Lot 2 Hardy's Road

Photograph 137: View of market garden cropping area in the west portion of the property.

Photograph 138: Chemical (herbicide etc...) mixing pump located in the north portion of the property behind the storage/processing shed.

Photograph 139: Concrete hardstand, water tank and chemical storage area in the north portion of the site behind the storage/processing shed.

Photograph 140: Equipment storage shed located to the west of the storage/processing shed.

Property: 325 Tuckers Road

Photograph 141: Vehicle storage shed along the east boundary of the property south of the residence.

Photograph 142: Machine, hay and tool storage to the south of the residence.

Photograph 143: Portable storage shed and open storage.

Photograph 144: Former stock shelter potential asbestos cement wall.

Property: 420 Berwick-Cranbourne Road

Photograph 145: small brick storage west of the residence in the east portion of the property.

Photograph 146: Old poultry coup located to the west of the brick storage shed.

Photograph 147: Old stock loading pens in the east portion of the property.

Photograph 148: Diesel AST located adjacent to a hay shed in the west portion of the property.

Property: 290 Patterson's Road

Photograph 149: Vehicle storage and car parking along the east side of the processing and maintenance sheds in the south portion of the property.

Photograph 150: Diesel and unleaded fuel ASTs located to the north of the processing and maintenance shed.

Photograph 151: Water tank, groundwater bore and chemical storage shed located adjacent to greenhouses in the south portion of the property.

Photograph 152: Greenhouse setup in the south portion of the property.

Property: 350 Clyde-Fiveways Road

Photograph 153: Residence and driveway in the north portion of the property.

Photograph 154: Horse paddocks and grassed area to the north of the residence.